

FINAL EXAMINATIONS



- Model Examinations of the School Book
(2 models + model for the special needs students)
- 25 Examinations from Some Governorates for the Year 2017
- 5 Examinations from Some Governorates for the Year 2016



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Model Examinations of the School Book

Model

1

Answer the following questions :

1 Complete the following statements :

(1) $1.5 \text{ litre} + 0.5 \text{ dm}^3 + 500 \text{ cm}^3 = \dots\dots\dots \text{ litres.}$

(2) The volume of a cuboid is 64 cm^3 and the area of its base is 16 cm^2 , then its height = $\dots\dots\dots \text{ cm.}$ (3) If the real length of an insect is 0.3 mm. and its length in a picture is 4.5 cm. , then the drawing scale = $\dots\dots\dots$

(4) The area of the triangle = $\frac{1}{2} \times \dots\dots\dots \times \dots\dots\dots$

2 Choose the correct answer :

(1) The range of the set of values : 7 , 3 , 6 , 9 and 5 is $\dots\dots\dots$

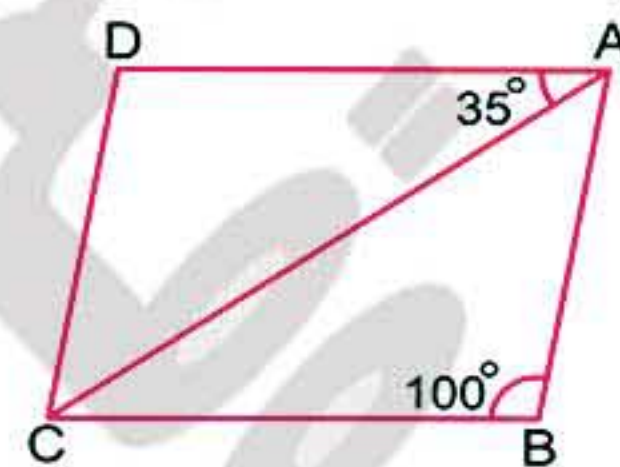
(2 or 4 or 6 or 12)

(2) $\frac{3}{4} = \dots\dots\dots$ (in decimal form) (0.2 or 0.5 or 0.25 or 0.75)(3) An agricultural tractor ploughs 28 feddans in 4 hours , then the time which is needed to plough 42 feddans is $\dots\dots\dots$ hours.

(4 or 6 or 7 or 8)

(4) In the opposite figure :

ABCD is a parallelogram. , then

 $m(\angle ACD) = \dots\dots\dots^\circ$ 

(35 or 45 or 100 or 180)

3 [a] A container has 12 litres of oil , it is wanted to put them in smaller bottles the capacity of each of them is 400 cm^3 . Calculate the number of bottles which are needed.

[b] If the buying price of electric sets is L.E. 72 000 and sold at 12 % profit. Calculate the selling price.

4 [a] The ratio among the measures of the angles of a triangle is 2 : 3 : 4
Find the measure of each angle in this triangle.

[b] A metallic cube of edge length 12 cm. It needs to be converted it into ingots in the shape of cuboid each of them of dimensions 3 cm. , 4 cm. and 6 cm. Calculate the number of ingots that are obtained.

5 [a] Two persons started a commercial business , the first paid L.E. 5 000 and the second paid L.E. 8 000 , at the end of the year , the net profit was L.E. 3 900 Calculate the share of each of them from the profit.

[b] The following table shows the marks of 100 students in one month in math test :

Marks	10 –	20 –	30 –	40 – 50	Total
Number of students	15	30	40	15	100

Draw the frequency curve of this distribution.

Model

2

Answer the following questions :

1 Choose the correct answer :

(1) If one angle of a parallelogram is right , then it is called a

(rectangle **or** square **or** rhombus **or** cube)

(2) $\frac{24}{5} = \dots\dots\dots$

($4\frac{1}{5}$ **or** $3\frac{2}{5}$ **or** $4\frac{4}{5}$ **or** $2\frac{4}{5}$)

(3) If the marks of 6 students in one exam are 29 , 33 , 57 , 40 , 36 and 49 ,
then the range of these marks =

(32 **or** 33 **or** 28 **or** 86)

(4) If $\frac{4}{6} = \frac{12}{x}$, then $x + 2 = \dots\dots\dots$

(16 **or** 18 **or** 20 **or** 22)

2 Complete the following statements :

(1) $65 \text{ dm}^3 = \dots\dots\dots$ litres.

(2) A wooden box in the form of a cube , its external volume is $1\,000 \text{ cm}^3$
and its capacity is 729 cm^3 , then the volume of wood of the box
= $\dots\dots\dots \text{ cm}^3$



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(3) The following table shows the marks of 50 students in one month in math :

Marks	10 –	20 –	30 –	40 – 50	Total
Number of students	5	15	20	10	50

then the number of students whose marks are less than 40 is students.

(4) If the height of the fence of the villa in the design is 5 cm. and its real height is 6 metres , then the drawing scale is :

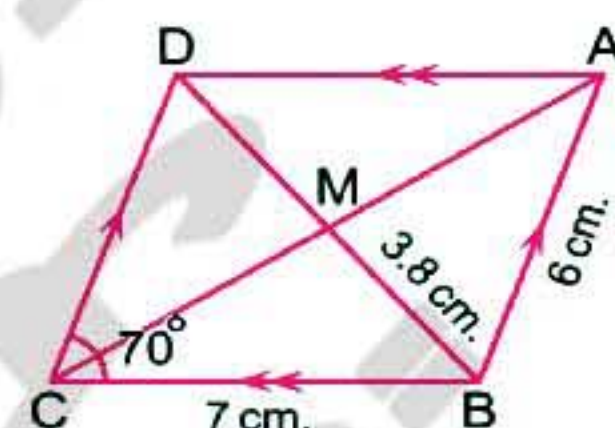
3 [a] Three persons started in business , the first paid 15 000 pounds , the second paid 25 000 pounds and the third paid 20 000 pounds , at the end of the year , the profit was 5 520 pounds.
Calculate the share of each of them.

[b] 10 litres of water were poured in a vessel in the shape of a cuboid , its base is a square of side length 25 cm. Find the height of the water in the vessel.

4 [a] In one of our schools , there are 360 students , if the ratio between the number of boys and the number of girls is 1 : 2
Find each of the number of boys and girls.

[b] In the opposite figure :

ABCD is a parallelogram in which $AB = 6$ cm.
 , $BC = 7$ cm. , $BM = 3.8$ cm. , $m(\angle C) = 70^\circ$
Without using geometrical instruments.
Find : $m(\angle ADC)$, the perimeter of $\triangle BCD$



5 [a] Heba bought a mobile phone for 660 pounds with a discount 15 %
Calculate the price of the mobile phone before the discount.

[b] The following table shows the number of hours which are spent by 40 pupils to study their lesson daily :

Number of hours	1 –	2 –	3 –	4 –	5 – 6	Total
Number of pupils	6	3	8	12	11	40

Represent these data by the frequency curve.

Model for the special needs students

Answer the following questions :

1 Complete the following statements :

(1) 5 000 grams : 8 kilograms = : (in the simplest form)

(2) $\frac{3}{10} = \dots\dots\dots \%$ (3) The volume of a cuboid = the area of base \times (4) 3 litres = cm^3

2 Choose the correct answer :

(1) The range of the values 50 , 25 , 35 and 20 is

(10 or 20 or 30)

(2) If $\frac{2}{3} = \frac{10}{x}$, then $x = \dots\dots\dots$

(6 or 15 or 20)

(3) The diagonals are perpendicular in

(rectangle or square or parallelogram)

(4) If the real length is 6 m. and the drawing length is 6 cm. , then the

drawing scale is

(1 : 10 or 1 : 1 000 or 1 : 100)

3 Choose from column (A) to the suitable one from column (B) :

A
(1) The cube has edges.
(2) If the drawing scale < 1 , this expresses
(3) The ratio between the side length of the square and its perimeter =
(4) All of angles of the rectangle are equal in measure and the measure each of any of them =

B
minimization
12
90°
1 : 4

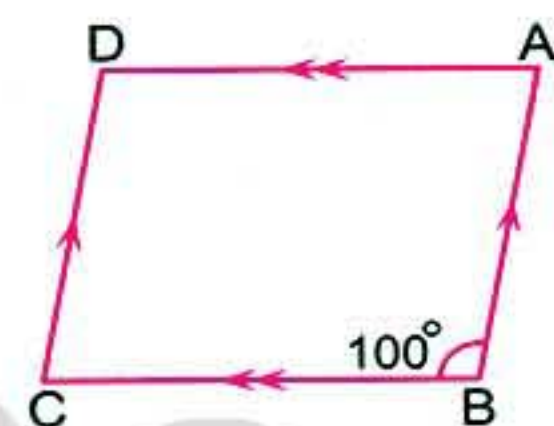
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4 Put true (✓) or false (✗) :

- (1) The numbers 1 , 2 , 6 and 12 are proportional. ()
- (2) If the percentage of boys is 35 % from the total of the number of pupils in a class , then the percentage of girls is 20 % ()
- (3) The favorite colour is a descriptive data. ()
- (4) The volume of a cube of edge length 3 cm. = 9 cm² ()

5 [a] Complete the following statements :

- (1) If $A : B = 2 : 3$, $B : C = 3 : 5$, then $A : C = \dots\dots\dots$:
- (2) In the opposite figure :
ABCD is a parallelogram , then
 $m(\angle D) = \dots\dots\dots^\circ$



[b] The following table shows the marks of 50 students in one month in maths :

Marks	10 –	20 –	30 –	40 – 50	Total
Number of students	6	10	20	14	50

Complete :

- (1) The number of students whose marks are less than 20
= students.
- (2) The number of students whose marks are 40 or more
= students.



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Some Governorates Examinations for the Year 2017

1 Cairo Governorate (2017)



Answer the following questions : (Calculator is allowed)

1 Complete the following :

[a] If $\frac{x}{8} = \frac{3}{4}$, then $x = \dots\dots\dots$

[b] $\frac{2}{5} = \dots\dots\dots \%$

[c] The quadrilaterals in which its diagonals are equal in length and bisect each other are called $\dots\dots\dots$ and $\dots\dots\dots$

[d] The difference between the greatest value and the smallest value in a set of individuals is called $\dots\dots\dots$



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2 Choose the correct answer from those given :

[a] If the volume of a cuboid is 24 cm^3 and the area of its base is 6 cm^2 , then its height = $\dots\dots\dots \text{ cm}$. (3 or 4 or 12 or 18)

[b] The following data are descriptive except $\dots\dots\dots$
(the colour or place of birth or age or blood species)

[c] $1500 \text{ cm}^3 = \dots\dots\dots \text{ litre}$ (0.15 or 1.5 or 15 or 150)

[d] If an agricultural machine ploughs 14 feddans in 3.5 hours, then the rate of performance of this machine is $\dots\dots\dots \text{ feddans/hour}$
($\frac{1}{4}$ or $2\frac{1}{2}$ or 4 or $10\frac{1}{2}$)

3 [a] If the distance between two cities on a map of drawing scale 1 : 500 000 equals 3 cm. Find the real distance between the two cities.

[b] The sum of the six faces areas of a cube is 54 cm^2
Find : (1) Its edge length. (2) Its volume.

4 [a] The number of pupils of a primary school in the first, the second and the third grades is 240 pupils, if the ratio among the three grades is 5 : 4 : 3 Calculate the number of pupils in each grade of them.

[b] Heba bought an electric sweeping machine for L.E. 425 with discount 15 % Calculate the original price of the sweeping machine before discount.



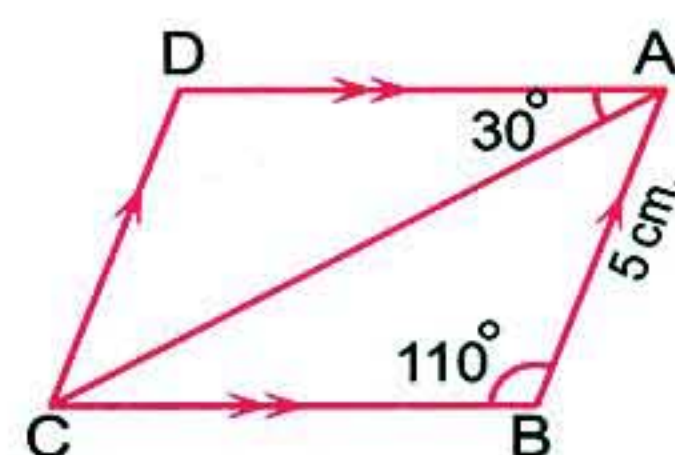
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5 [a] In the opposite figure :

ABCD is a parallelogram in which $m(\angle B) = 110^\circ$, $m(\angle DAC) = 30^\circ$ and $AB = 5$ cm.

Find : (1) The length of \overline{CD} (2) $m(\angle BAC)$



[b] The following table shows the marks of 100 pupils in mathematics :

Marks	10 –	20 –	30 –	40 –	50 –	Sum
Number of pupils	15	25	30	20	10	100

(1) Draw the frequency curve for this distribution.

(2) What is the number of pupils who get 30 marks or more ?

2 Giza Governorate (2017)



Answer the following questions : (Calculator is allowed)

1 Complete the following :

[a] $1 - 30\% = \dots\dots\dots$

[b] If $\frac{2}{5} = \frac{x}{15}$, then $x = \dots\dots\dots$

[c] The two diagonals are equal in length in each of $\dots\dots\dots$ and $\dots\dots\dots$

[d] If the drawing scale < 1 , this expresses $\dots\dots\dots$

2 Choose the correct answer :

[a] If $A : B = 2 : 5$, $B : C = 5 : 9$, then $A : C = \dots\dots\dots$

(5 : 2 or 2 : 9 or 5 : 7 or 2 : 11)

[b] The volume of the cube in which the sum of all its edge lengths is 36

$= \dots\dots\dots \text{ cm}^3$

(27 or 63 or 72 or 108)

[c] The range of the set of the values 7, 3, 6, 9 and 5 is $\dots\dots\dots$

(3 or 4 or 6 or 12)

[d] The opposite data are quantitative except the $\dots\dots\dots$

(age or tallness or weight or favorite colour)

3 [a] If the length of Suez Canal on a map of scale drawing 1 : 1 100 000 is 15 cm., then find its real length in km.

[b] A water tap is leaking 20 litres of water in 5 hours. Find the leaking rate of water per hour (Please advise them).

4 [a] A swimming pool in the shape of a cuboid whose internal dimensions are 40 m. , 30 m. and 1.8 m. Find its capacity in litres.

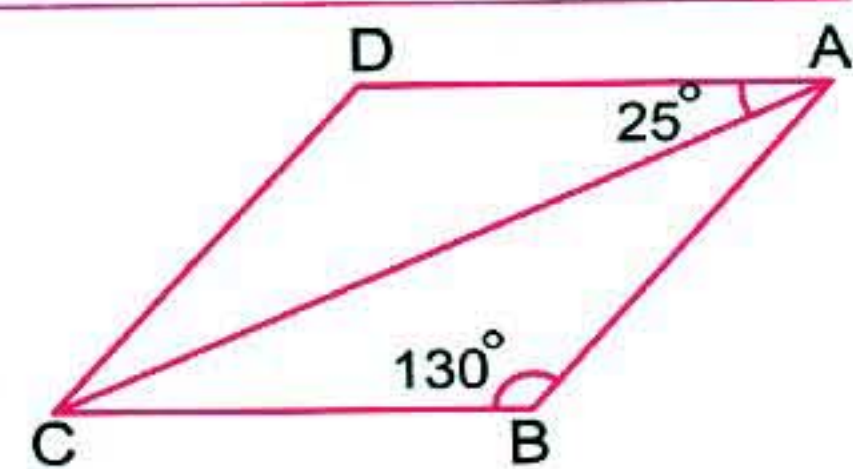
[b] In one of our schools , there are 560 students , if the number of girls = $\frac{3}{5}$ the number of boys. Find each of the number of boys and girls.

5 [a] In the opposite figure :

ABCD is a parallelogram in which
 $m(\angle B) = 130^\circ$ and $m(\angle DAC) = 25^\circ$

Find : (1) $m(\angle D)$

(2) $m(\angle BAC)$



[b] The following table shows sums of money in pounds was paid by a group of contributors in a goodness party :

The sum	50 –	60 –	70 –	80 –	90 –	100 –
No. of contributors	5	7	10	12	10	7

(1) Draw the frequency curve of this distribution.

(2) What is the number of contributors by L.E. 80 and more ?

3 Alexandria Governorate (2017)



Answer the following questions :

1 Choose the correct answer :

[a] In the following , the smallest number is

(0.5 or 0.25 or 0.125 or 0.375)

[b] If $\frac{2}{7} = \frac{x}{21}$, then $x =$

(6 or 21 or 12 or 7)

[c] $4\ 200\ 000\text{ cm}^3 =$ m^3

(42 or 420 or 4.2 or 4 200)

[d] The opposite data are quantitative except

(tallness or age or number of sons or favorite food)

2 Complete the following :

[a] 56 days = weeks.

[b] The ratio between $\frac{1}{2}$ kilogram and 700 grams = :

[c] If the values of a frequency distribution lie between (20 , 60) , then the range of this distribution =

[d] If one of the angles of the parallelogram is right and two of its adjacent sides are equal in length , then it is called



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- 3 [a] In a class of a primary (mixed school) the number of boys = $\frac{4}{5}$ the number of girls , if the number of boys is 16 pupils , what is the number of the pupils in the class ?
- [b] Ahmed drew a picture to his brother Osama with a drawing scale 1 : 40 If the real height of Osama is 160 cm. What is his height in the picture ?
- 4 [a] Find the buying price of goods sold for L.E. 21 520 and the percentage of profit is 15 % and find the profit.
- [b] A cube of metal its edge length equals 12 cm. need to be melted down and converted into alloys in the form of a cuboid with dimensions 3 cm. , 4 cm. and 6 cm. Calculate the number of alloys that can be obtained.
- 5 [a] A cube-shaped vessel , its internal edge length is 30 cm. , it is filled with food oil :
- (1) Calculate the capacity of food oil.
- (2) If the price of one litre of food oil is 9.5 pounds. Calculate the price of all oil.

[b] The following table shows the marks of 100 pupils in math exam :

Sets	10 –	20 –	30 –	40 –	50 –	Total
Frequency	15	25	30	20	10	100

Draw the frequency curve for this distribution.

4 El-Kalyoubia Governorate (2017)



Answer the following questions :

1 Complete the following :

[a] If $\frac{a}{b} = \frac{4}{7}$, $\frac{b}{c} = \frac{7}{9}$, then $a : b : c = \dots : \dots : \dots$

[b] A water tap is leaking 360 litres of water in an hour , then the leaking rate of water per minute = \dots litres/minute

[c] The ratio between $2\frac{1}{4}$ km. and 125 m. = $\dots : \dots$

[d] The circumference of a circle = \dots

2 Choose the correct answer :

[a] If $\frac{x+12}{8} = 2$, then $x = \dots$ (6 or 4 or 8 or 16)



[b] If the perimeter of a cube base is 36 cm. , then its volume = cm³
(36 or 6 or 729 or 216)

[c] 25 % of 1 000 = 50 % of
(2 000 or 1 500 or 1 250 or 500)

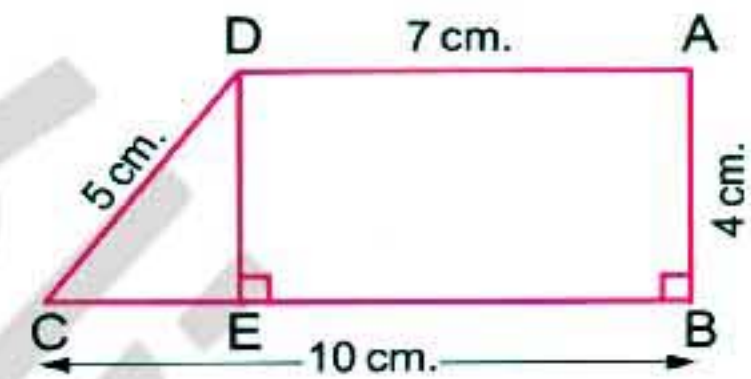
[d] If the real length of a tree is 6 m. and its drawing length is 3 cm. , then the drawing scale =
(1 : 100 or 1 : 200 or $\frac{1}{300}$ or 1 : 600)

3 [a] The ratio between the height of a building and the height of a tower is $\frac{4}{20}$
If the height of the building is 36 metres , find the height of the tower.

[b] A model for a football playground is drawn with a drawing scale 1 : 500
, if the dimensions of the playground in the model are 2 cm. and 4 cm.
Find : (1) The real dimensions of this playground in metres.
(2) The real area of this playground.

4 [a] In the opposite figure :

ABCD is a trapezium in which $m(\angle B) = 90^\circ$
, AD = 7 cm. , AB = 4 cm. , BC = 10 cm.
, DC = 5 cm. and ABED a rectangle , complete :



(1) AB = = cm.

(2) EC = cm.

(3) The perimeter of the triangle DEC = cm.

[b] A swimming pool is in the shape of a cuboid whose internal dimensions are 40 m. , 30 m. and 1.8 m. Find its capacity in litres.

5 [a] ABC is a right-angled triangle at B , if the ratio between the measures of the angles A and C is 2 : 3 , find the measure of each of the two angles.

[b] The following table shows the temperature degrees expected for 30 cities in one of the summer days :

Temperature degree	24 –	28 –	32 –	36 –	40 –	44 –	Total
Number of cities	3	4	7	9	5	2	30

Draw the frequency curve of the previous table.

5 El-Sharkia Governorate (2017)



Answer the following questions :

1 Choose the correct answer :

- [a] The rhombus has lines of symmetry.
(zero or 1 or 2 or 4)
- [b] If the ratio 7 : 13 is the same ratio $x : 52$, then $x =$
(14 or 21 or 28 or 35)
- [c] The opposite data are descriptive except
(the favorite colour or birth place or blood species or age)
- [d] $1.45 \text{ litre} + 0.5 \text{ dm}^3 + 50 \text{ cm}^3 =$ litres
(51.95 or 2 or 2.45 or 3)

2 Complete the following :

- [a] If $945 = (A \times 100) + 45$, then $A =$
- [b] The ratio between 12 kirats and $1 \frac{1}{2}$ feddan (in the simplest form) is :
- [c] If 87 is the greatest individual of a set and the range = 39 , then the smallest individual of this set equals
- [d] The volume of a cuboid equals 400 cm^3 and its base is of length = 8 cm. and width = 5 cm. , then its height equals cm.

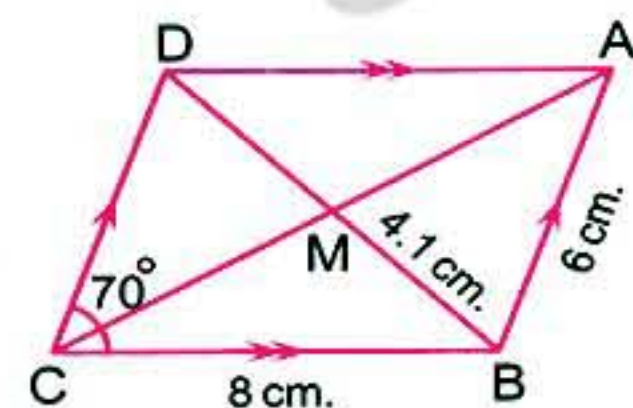
3 [a] A man distributed 6 300 pounds between his three sons , if the share of the first was third of the money and the ratio between the share of the second and the third is 3 : 2 Calculate the share of each of them.

[b] If the distance between two cities is 180 km. and the drawing scale is 1 : 9 000 000 How long is the distance between the two cities on the map ?

4 [a] Nahed bought a computer for L.E. 4 500 and the discount was 10 % Calculate the original price of the computer before discount.

[b] In the opposite figure :

ABCD is a parallelogram in which $AB = 6 \text{ cm}$,
 $BC = 8 \text{ cm}$, $BM = 4.1 \text{ cm}$. and $m(\angle C) = 70^\circ$
Without using geometrical instruments ,
find : $m(\angle ADC)$, the perimeter of $\triangle BCD$



- 5 [a] The sum of the lengths of all edges of a cube is 132 cm.
Calculate its volume.

[b] The following table shows the marks of 90 students in maths test :

Marks	10 –	20 –	30 –	40 –	Total
Number of students	15	25	30	20	90

Draw the frequency curve for this data.

6 El-Monofia Governorate (2017)



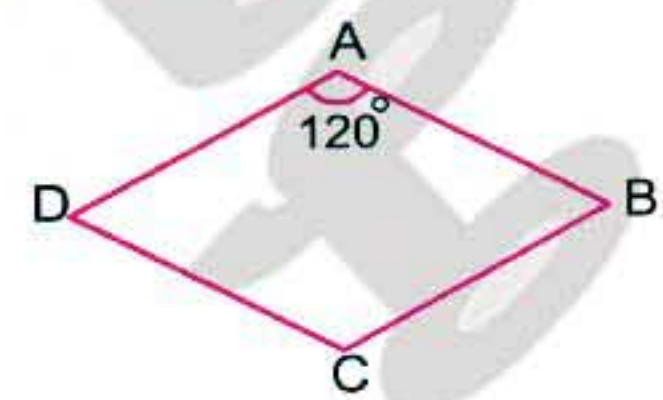
Answer the following questions : (Calculator is allowed)

1 Choose the correct answer from those given :

- [a] $2.8 \text{ dm}^3 = \dots\dots\dots$ litres (2.8 or 28 or 2 800 or 28 000)
 [b] If $\frac{3}{4} = \frac{x}{20}$, then $5x = \dots\dots\dots$ (15 or 20 or 75 or 5)
 [c] The sum of the two numbers X and Y is 20 , then $Y = \dots\dots\dots$
 ($20 + X$ or $20 - X$ or $X - 20$ or $\frac{X}{20}$)
 [d] From the quantitative data is
 (the favourite colour or favourite food or the age or social case)

2 Complete the following :

- [a] A machine produces 240 pieces of certain materials in 3 hours
 , then the rate of production of the machine = pieces/hour
 [b] If the values of a frequency distribution the between (10 , 50) , then
 the range of this distribution =
 [c] The triangle whose side lengths are 7 cm. , 7 cm. and 7 cm. is
 [d] In the opposite figure:
 ABCD is a rhombus
 in which $m(\angle A) = 120^\circ$
 , then $m(\angle B) = \dots\dots\dots$



- 3 [a] A garden in the shape of a square of side length 50 metres. It is drawn
 with a drawing scale 1 : 1 000
 Find its area on the drawing in cm^2

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[b] Maher bought a car for L.E. 49 000 and he spent L.E. 1 000 for repairing it , then the sold it for L.E. 55 000 Calculate the percentage of profit.

4 [a] Find the volume of the cube in which the sum of lengths of all its edges is 36 cm.

[b] If the ratio between Ahmed's money and Mohamed's money is 7 : 4 and if Ahmed's money exceeds Mohamed's money by L.E. 60 Find the money with each of them.

5 [a] A cuboid its base is a square-shaped whose perimeter is 20 cm. and its height is 7 cm. Calculate its volume.

[b] On the orphan day , a group of students donated amounts of money in pounds shown in the following table :

Money in pounds	3 –	5 –	7 –	9 –	11 –	Total
Number of students	7	10	15	10	8	50

(1) What is the number of students who donated by 9 pounds and more ?

(2) Draw the frequency curve for this frequency distribution.

7 El-Gharbia Governorate (2017)



Answer the following questions :

1 Choose the correct answer from those given :

[a] The ratio between 3 feddans and 40 kirats equals
($\frac{3}{4}$ or $\frac{5}{9}$ or $\frac{9}{5}$ or $\frac{4}{3}$)

[b] If $\frac{5}{9} = \frac{15}{x}$, then $x =$
(3 or 5 or 15 or 27)

[c] If one of the angles of the parallelogram is right and two of its adjacent sides are equal in length , then its is called
(rhombus or square or triangle or rectangle)

[d] The range of the set of values 5 , 4 , 8 , 12 and 7 is
(8 or 7 or 5 or 4)

2 Complete :

[a] $\frac{2}{5} + 30\% =$ %

[b] The volume of a cuboid equals 400 cm^3 , its length is 8 cm. and its width is 5 cm. , then its height = cm.

[c] If the length in the drawing is 2 cm. and the real length is 20 metres. , then the drawing scale equals 1 :

[d] All the following data [volume , area , length , blood type] are quantitative except

3 [a] If the ratio between Ahmed's money and Omar's money is 9 : 13 , if the sum with them is 440 pounds. Find the money with each of Ahmed and Omar.

[b] 10 litres of water were poured in a pot in the shape of a cuboid , its base is in the form of a square , its side length from the inside is 25 cm. Find height of the water in the pot.

4 [a] Abeer bought a TV set for 1 800 pounds and the discount was 10 % Calculate the original price of the TV set before discount.

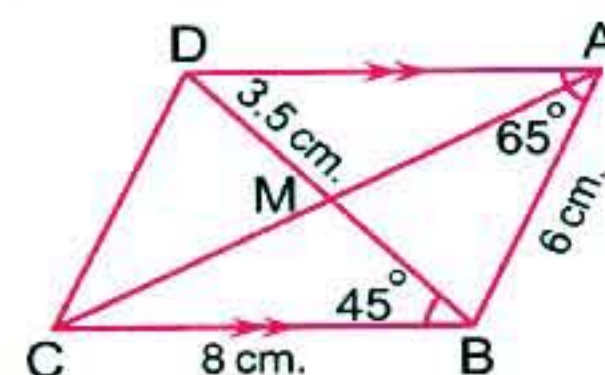
[b] In the opposite figure :

$m(\angle BAD) = 65^\circ$, $m(\angle DBC) = 45^\circ$

, $AB = 6$ cm. , $CB = 8$ cm. and $MD = 3.5$ cm.

Calculate without using measuring tools :

(1) $m(\angle ABD)$ (2) $m(\angle ADC)$ (3) Perimeter of $\triangle ABD$



5 [a] If the length of the Suez Canal on a map of drawing scale 1 : 1 100 000 is 15 cm. Find its the real length in kilometres.

[b] The following table shows the marks of 50 students in English exam :

Marks	0 –	5 –	10 –	15 –	20 –	Total
Number of students	4	8	20	12	6	50

(1) Draw the frequency curve.

(2) How many students who record less than 10 marks ?

8 El-Dakahlia Governorate (2017)



Answer the following questions :

1 Complete the following :

[a] The capacity is

[b] A square , the length of its diagonal is (10 cm.) , then its area = cm^2

[c] If (A is half B) and (B is twice C) , then $A : C = \dots\dots\dots$

[d] The range of the set of values 7 , 3 , 6 , 9 and 5 is

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2 Choose the correct answer :

- [a] The opposite data are descriptive except
(the favorite colour **or** birthday **or** age **or** blood species)
- [b] $75\% \text{ litre} + 25\% \text{ dm}^3 = \dots\dots\dots$
(10 litre **or** 1 000 cm^3 **or** 100 dm^3 **or** 100 cm^3)
- [c] A cube , its volume is $\frac{1}{8} \text{ cm}^3$, then the perimeter of one face = cm.
($\frac{1}{2}$ **or** 8 **or** 4 **or** 2)
- [d] $263.5 \text{ cm.} \approx \dots\dots\dots$ metres (to the nearest metre)
(26 350 **or** 264 **or** 3 **or** 260)

3 [a] The ratio between the length of a rectangle to its width equals 7 : 4 , its perimeter is 44 cm. Find the length and the width of the rectangle. Then calculate its area.

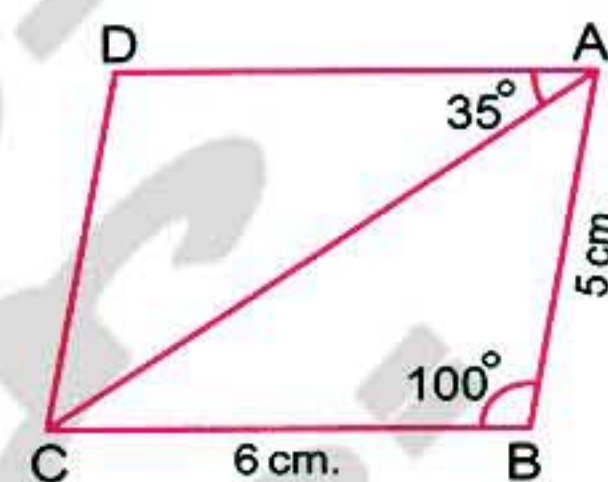
- [b] Aquarium in the shape of cuboid , the inner dimensions of its base are 20 cm. , 15 cm. , if 12 litres of water was poured in it. Find the depth of the water.

4 [a] The height of a minaret is 45 metres and the length of its shadow in a moment equals 24 meters. What is the height of a tree if the length of its shadow equals 8 metres in the same moment ?

[b] In the opposite figure :

ABCD is a parallelogram in which $AB = 5 \text{ cm.}$
 $BC = 6 \text{ cm.}$, $m(\angle B) = 100^\circ$ and $m(\angle DAC) = 35^\circ$
 Without using measuring tools , find :

- (1) $m(\angle D)$ (2) $m(\angle ACD)$
 (3) The perimeter of parallelogram.



5 [a] The owner of a bookshop sold 25 % of notebooks and the remainder was 60 notebooks. How many notebooks were there first ?

[b] The following table shows the degrees of (60) students in one month in math :

Marks	10 –	20 –	x –	40 –	Total
Number of students	10	15	25	10	60

- (1) Find the value of x
 (2) Draw the frequency curve for that distribution.

9 Ismailia Governorate (2017)



Answer the following questions : (Calculator is allowed)

1 Complete the following :

- [a] The rhombus becomes a square if its diagonals are
- [b] If the drawing length equals 5 cm. and the real length equals 30 metres , then the drawing scale is : (in the simplest form)
- [c] If the lower limit of the set = 10 and the upper limit = 20 , then its centre =
- [d] The circumference of a circle = $\pi \times$

2 Choose the correct answer from those between brackets :

- [a] If $\frac{x}{21} = \frac{2}{7}$, then $x - 3 =$ (6 or 4 or 3 or 2)
- [b] The range of the set of values 4 , 7 , 3 and 9 is (12 or 6 or 5 or 3)
- [c] The volume of a cuboid its height = 3 cm. and surface area of its base = 12 cm^2 is (36 cm^3 or 4 cm^3 or 36 cm^2 or 4 cm^2)
- [d] The lowest common multiple of 6 and 9 is (3 or 6 or 9 or 18)

3 [a] Ahmed spends L.E. 45 in 5 days.

Calculate the rate of spending in one day.

- [b] The owner of one of electrical appliances sold a refrigerator for 3 180 pounds. If the percentage of his profit is 6 % Find the buying price of the refrigerator.

4 [a] A cube the perimeter of its base = 40 cm. Find its volume.

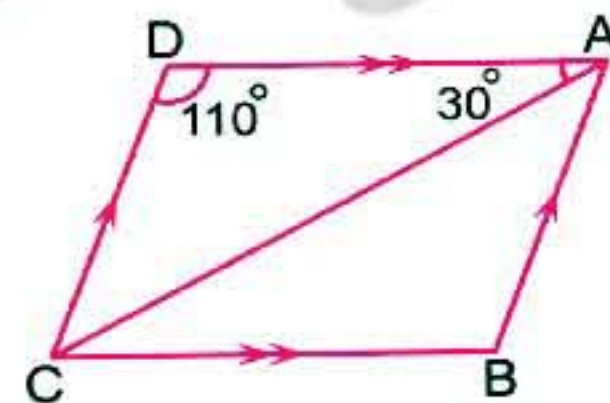
- [b] Three persons shared in a trade. The first paid 50 000 pounds and the second paid 40 000 pounds and the third paid 30 000 pounds , at the end of the year the profit was 36 000 pounds. Find the share of each in profit.

5 [a] In the opposite figure :

ABCD is a parallelogram in which $m(\angle D) = 110^\circ$ and $m(\angle CAD) = 30^\circ$ Find :

(1) $m(\angle CAB)$

(2) $m(\angle B)$



Final Examinations

[b] The following table shows the marks of 100 pupils in mathematics :

Marks	10 –	20 –	30 –	40 –	50 –	Total
Number of pupils	15	35	25	15	10	100

- (1) Draw the frequency curve for this distribution.
 (2) Calculate the number of pupils who got less than 30 marks.

10 Suez Governorate (2017)



Answer the following questions : (Calculator is allowed)

1 Complete the following :

[a] 8 hours : $\frac{1}{2}$ day = : (in the simplest form)

[b] If $\frac{2}{7} = \frac{x}{21}$, then $x = \dots\dots\dots$

[c] $4 \text{ m}^3 = \dots\dots\dots \text{ dm}^3$

[d] The two diagonals are equal in length in each of and

2 Choose the correct answer from those given :

[a] $0.03 < \dots\dots\dots$ (0.02 or 0.1 or 0.009 or 0.011)

[b] Ahmed bought a car at the price L.E. 60 000 and he sold it with profit 5 % , then the selling price of the car is

(L.E. 61 000 or L.E. 62 000 or L.E. 63 000 or L.E. 65 000)

[c] The volume of a cuboid whose dimensions are 2 cm. , 3 cm. and 5 cm. = (30 cm. or 30 cm^2 or 30 cm^3 or 10 cm^3)

[d] The range of the set of values 7 , 3 , 6 , 9 and 5 is
 (9 or 3 or 6 or 7)

3 [a] An agricultural machine ploughs 6 feddans at 3 hours.
 Find the rate of performance of this machine per hour.

[b] Three persons set up a commercial business , the first paid $\frac{3}{4}$ what the second paid , the second paid $\frac{2}{3}$ what the third paid , at the end of the year the profit became L.E. 6 240
 Calculate the share of each of them from profit.

- 4 [a] The sum of lengths of all edges of a cube is 36 cm. Calculate its volume.
 [b] The following table shows the marks of 100 students in one month in math :

Marks	10 –	20 –	30 –	40 –	50 –	Total
Number of students	15	25	30	20	10	100

Draw the frequency curve for this distribution.

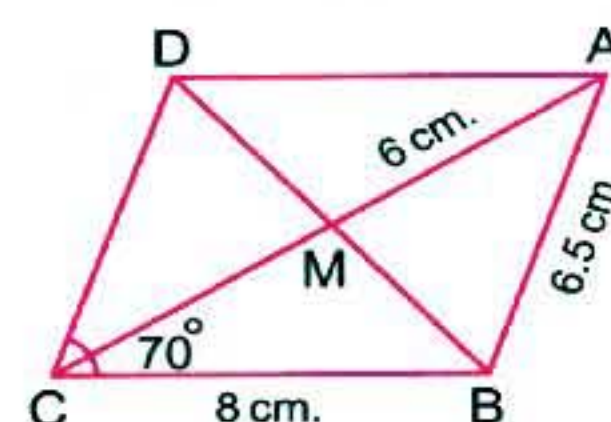
- 5 [a] If the distance between two cities is 180 km. and the drawing scale is 1 : 900 000 How long is the distance between the two cities on the map ?

[b] In the opposite figure :

ABCD is a parallelogram in which AB = 6.5 cm.

, BC = 8 cm. , AM = 6 cm. , $m(\angle C) = 70^\circ$

Without using geometrical instruments , find :



- (1) $m(\angle ABC)$ (2) The length \overline{AC} (3) The perimeter of $\triangle ABC$

11 Port Said Governorate (2017)



Answer the following questions :

1 Complete the following :

[a] $8\,765 \times \dots = 876.5$

[b] The length of set = $\dots \div$ the number of sets

[c] The cube each two adjacent faces intersect at a line segment which is called \dots

[d] The ratio between 18 months and 3 years = $\dots : \dots$
 (in the simplest form)

2 Choose the correct answer from those given :

[a] 7 $\dots \{17, 707\}$ (\subset or $\not\subset$ or \in or \notin)

[b] $6.7 \text{ dm}^3 = \dots$ litres (67 or 6.7 or 670 or 6 700)

[c] The opposite data are quantitative except \dots
 (age or height or the favorite colour or weight)

[d] If $\frac{18}{x} = 20\%$, then $x = \dots$ (90 or 100 or 120 or 190)

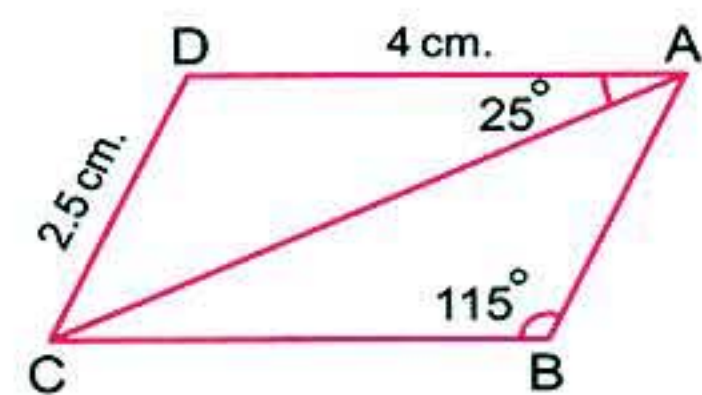


Final Examinations

- 3 [a] A family spends L.E. 450 in 5 days.
What is the rate of what the family spends per day ?
- [b] A metallic cube of edge length 18 cm. , it needs to be converted into ingots in the shape of cuboids each of them has the dimensions 3 cm. , 6 cm. and 9 cm. Calculate the number of ingots that are obtained.
- 4 [a] Find the buying price of goods sold for L.E. 17 250 and the percentage of profit is 15 %

[b] In the opposite figure :

ABCD is parallelogram in which $m(\angle B) = 115^\circ$
 $m(\angle DAC) = 25^\circ$, $AD = 4$ cm. and $CD = 2.5$ cm.
 Find : The length of \overline{BC} , $m(\angle D)$, $m(\angle ACD)$



- 5 [a] The distance between Port Said and Ismailia on a map of drawing scale 1 : 1 000 000 equals 9 cm. Find the real distance.
- [b] The following table shows the degrees of 100 students in one month in math :

Sets	10 –	20 –	30 –	40 –	50 – 60	Total
Frequency	15	25	30	20	10	100

- (1) Draw the frequency curve for this distribution.
- (2) What is the number of students who record less than 30 degrees ?

12 Damietta Governorate (2017)



Answer the following questions : (Calculator is allowed)

- 1 Complete the following :
- [a] The difference between the greatest value and the smallest value in a set of individuals is called
- [b] The two diagonals bisect each other and equal in length in and
- [c] If x , 18 , 6 and 9 are proportional , then $x =$
- [d] The volume of a cube whose sum of lengths of its edges is 36 cm. equals cm^3

2 Choose the correct answer from those given :

- [a] $6\,500\text{ dm}^3 = \dots\dots\dots \text{ m}^3$ (65 000 or 650 or 65 or 6.5)
 [b] If the drawing length is 2 cm. and the real length is 20 m. , then the drawing scale is $\dots\dots\dots$ (1 : 10 or 1 : 100 or 1 : 1 000 or 1 : 10 000)
 [c] A rectangle of length double its width , then the ratio between width and its perimeter equals $\dots\dots\dots$ (1 : 6 or 1 : 3 or 1 : 2 or 2 : 1)
 [d] An agricultural machine ploughs 14 feddans in 3.5 hours , then the rate of performance of the machine in feddan per one hour is $\dots\dots\dots$ ($\frac{1}{2}$ or 4 or 8 or 49)

3 [a] The ratio between the heights of two buildings is 4 : 7 , if the difference between their heights is 9 metres. Find the height of each building.

- [b] A tank in the shape of a cuboid whose dimensions are 7 m. , 5 m. and 9 m. Find the volume of water which fill its third.

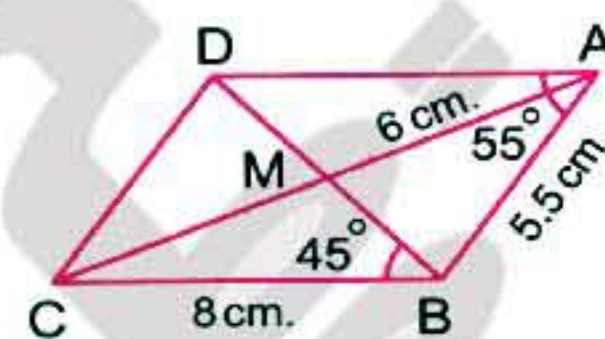
4 [a] Three persons participated in a commercial project , the first paid $\frac{3}{4}$ of what second paid and the second paid $\frac{2}{3}$ of what third paid. At the end of the year the profit was L.E. 6 240
Calculate the share of each of them.

- [b] Heba bought an electric sweeping machine for L.E. 221 , if the discount was 15 %
Calculate the original price of the sweeping machine before discount.

5 [a] In the opposite figure :

ABCD is a parallelogram where $AB = 5.5\text{ cm.}$
 $BC = 8\text{ cm.}$, $AM = 6\text{ cm.}$, $m(\angle BAD) = 55^\circ$
 $m(\angle DBC) = 45^\circ$ Without measuring , find :

- (1) $m(\angle ABD)$ (2) Perimeter of $\triangle ACD$



- [b] On the orphan day a group of students donated amounts of money in pounds in the following table :

Money in L.E.	3 –	5 –	7 –	9 –	11 –	Total
Number of students	7	10	15	10	8	50

- (1) Represent this data by the frequency curve.
 (2) What is the number of students who donated by 9 pounds and more ?

13 Kafr El-Sheikh Governorate (2017)



Answer the following questions : (Calculator is allowed)

1 Complete the following :

[a] The area of triangle =

[b] A cube , its perimeter of the base is 36 cm. , then its volume = cm^3

[c] The ratio between 0.75 kirat : 16 sahms = : in the simplest form

[d] If $\{3, 6\} = \{9 - x, 3\}$, then $x = \dots\dots\dots$

2 Choose the correct answer from those given :

[a] The range of the set of values 7 , 3 , 6 , 9 , 5 equals

(3 or 4 or 6 or 17)

[b] The length of an insect in the picture is 4 cm. and its real length is 2 millimetres , then the drawing scale is

(1 : 20 or 1 : 80 or 20 : 1 or 80 : 1)

[c] 4.6 liter = mL.

(46 or 460 or 4 600 or 46 000)

[d] The opposite data are descriptive except

(the favorite colour or the birth place or the age or the blood species)

3 [a] If the ratio between dimensions of rectangle is 3 : 4 and its perimeter equals 140 cm. , find its area.

[b] Find the cost price of goods sold for 21 275 pounds , with profit percentage 15 % and find the value of the profit.

4 [a] A piece of building land is distributed between two brothers in the ratio 7 : 5 , if the share of the first one exceeds the share of the second by 80 square metre. Find the area of the land.

[b] In the opposite figure :

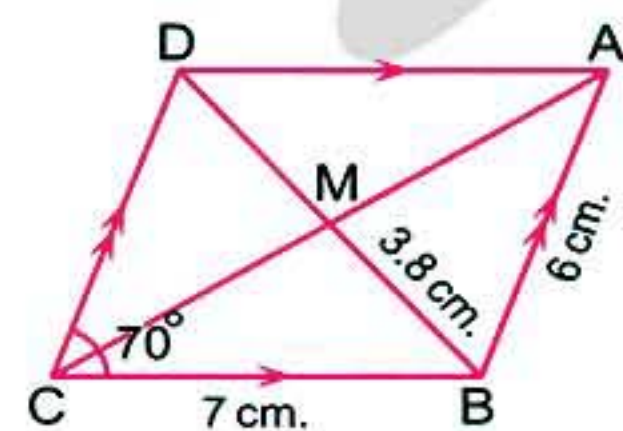
ABCD is a parallelogram in which $AB = 6 \text{ cm}$.

, $BC = 7 \text{ cm}$, $BM = 3.8 \text{ cm}$ and $m(\angle C) = 70^\circ$

, without using geometrical instruments find :

(1) $m(\angle ADC)$

(2) The perimeter of $\triangle BCD$



- 5 [a] A swimming pool , its internal dimensions are 30 , 15 and 2 metres , if 405 m³ of water are poured into it

Find the height of water in the swimming pool in centimetres.

- [b] The following table shows the degrees of 100 students in one month in maths :

Marks	20 –	30 –	40 –	50 –	Sum
Number of students	15	30	40	15	100

- (1) Draw the frequency curve for this distribution.

- (2) **Complete** : The ordered pair which represent the set 50 – is

14 El-Beheira Governorate (2017)



Answer the following questions :

- 1 Choose the correct answer :

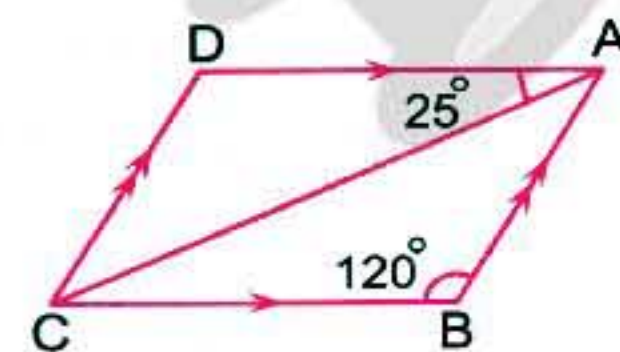
- [a] The centimetre cube is a unit for measuring
(the perimeter **or** the area **or** the volume **or** the length)
- [b] If the ratio among the measurements of the angles of a triangle is 1 : 2 : 3 , then the measure for the smallest angle equals
(10° **or** 30° **or** 45° **or** 60°)
- [c] The diagonals are perpendicular in each of
(square and rectangle **or** rhombus and rectangle **or** square and rhombus **or** parallelogram and rectangle)
- [d] is quantitative data. (The favourite colour **or** The birth place **or** The blood species **or** The age)

- 2 Complete the following statements :

[a] 62.5 % = $\frac{\dots}{8}$

[b] 3 litres = cm³

- [c] In the opposite figure :
ABCD is a parallelogram
, m (∠ BAC) = °



- [d] If the marks of 5 pupils in one in the tests are 29 , 33 , 57 , 40 , 36 , then the range for these marks is equal to

Final Examinations

- 3 [a]** Two machines for the manufacture of cloth. The first produces 500 metres of cloth in two hours and the second produces 600 metres of cloth in $2\frac{1}{2}$ hours. Which of the two machines is more efficient ?
(Determine the steps of solution)
- [b]** Atlas of a number of cities drawn at a scale of 1 : 100 000 , if the real distance between the two cities is 36 km. , find the drawing distance between them in this atlas.
- 4 [a]** A man died and left a piece of land for building , its area is 17 kirats. He recommended for building on orphan house on area equals 5 kirats. The remainder is distributed between his son and his daughter in the ratio 2 : 1 Calculate the share of each of them from the land.
- [b]** A swimming pool in the shape of a cuboid whose internal dimensions are 40 m. , 30 m. and 1.8 m. Find its capacity in litres.
- 5 [a]** A glass vessel is cubed-shaped , its inner edge length is 30 cm. This vessel contains an amount of water. If we throw a metallic piece in it , then the water level raised 5 cm. because of that. Find the volume of the metallic piece.
- [b]** The following frequency distribution table represents the daily wages of a sample formed from 50 workers in a factory :
- | Wages | 10 – | 20 – | 30 – | 40 – | 50 – | 60 – | 70 – 80 | Total |
|-------------------|------|------|------|------|------|------|---------|-------|
| Number of workers | 4 | 6 | 10 | 14 | 8 | 5 | 3 | 50 |
- (1) Draw the frequency curve.
- (2) Find the percentage of the number of workers whose wages are less than L.E. 40

15 El-Fayoum Governorate (2017)



Answer the following questions : (Calculator is allowed)

1 Complete each of the following :

- [a]** The ratio between 18 kirats : $\frac{1}{2}$ feddan = :
(in the simplest form)
- [b]** The sum of measures of the interior angles of a triangle =°
- [c]** A vase in the shape of a cube the length of its interior edge equals 20 cm. , then its capacity = litres.

[d] If the values of a frequency distribution lie between (20 , 60) , then the range of this distribution =

2 Choose the correct answer from those between brackets :

[a] If $\frac{5}{9} = \frac{15}{x}$, then $x = \dots\dots\dots$ (3 or 5 or 15 or 27)

[b] $\{3 , 5\} \cap \{4 , 5\} = \dots\dots\dots$ ({3} or {5} or {4} or {3 , 4 , 5})

[c] The opposite data are quantitative data except

(the length or the age or the birth place or the weight)

[d] If the volume of the cuboid equals 400 cm^3 and the area of its base equals 50 cm^2 , then its height = cm.

(8 or 80 or 40 or 50)

3 [a] A map is drawn with a scale 1 : 200 000 , if the distance between two cities on this map is 8 cm. Find the real distance between the two cities in kilometers.

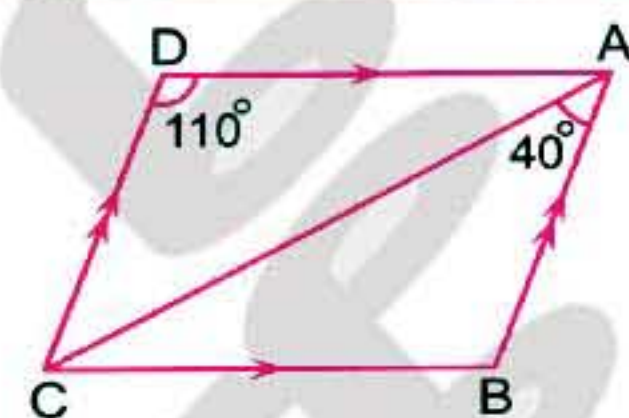
[b] Osama bought a car in the price L.E. 60 000 and he sold it with profit 5 % Find the selling price of the car

4 [a] If the ratio between the share of Hany and the share of Sherif and the share of Khalid is 3 : 5 : 7 and if the share of Hany is L.E. 24 Calculate the share of each of Sherif and Khalid.

[b] A cube of metal its edge length equals 12 cm. need to be melted down and converted into alloys in the form of a cuboid with dimensions 3 cm. , 4 cm. and 6 cm. Calculate the number of alloys that can be obtained.

5 [a] In the opposite figure :

ABCD is a parallelogram in which
 $m(\angle D) = 110^\circ$, $m(\angle BAC) = 40^\circ$
 Find : $m(\angle B)$, $m(\angle DAC)$



[b] The following table shows the marks of 50 pupils in mathematics exam :

The marks	15 –	20 –	25 –	30 –	35 –	Total
No. of pupils	8	12	14	10	6	50

Draw the frequency curve for this distribution.

16 Beni Suef Governorate (2017)



Answer the following questions :

1 Complete the following :

[a] The area of a rectangle = \times

[b] If $\frac{3}{4} = \frac{x}{12}$, then $x =$

[c] $5 + 5 + 5 + 5 = 5 \times$ =

[d] If the values of a frequency distribution lie between (90 , 30) , then the range of this distribution =

2 Choose the correct answer from those given between brackets :

[a] The sum of the measures of any two consecutive angles in a parallelogram =° (90 or 360 or 180 or 108)

[b] The side length of a square = 4 cm. , then the ratio between its side length and its perimeter = (4 : 1 or 1 : 3 or 3 : 1 or 1 : 4)

[c] A cuboid its volume is 400 cm^3 , its length is 8 cm. and its width is 5 cm. , then its height = cm. (8 or 5 or 10 or 4)

[d] The opposite data are descriptive except (the favourite colour or the birth place or the age or the blood type)

3 [a] A factory produces 1 000 juice cans in 4 hours , calculate its production rate per hour.

[b] A man deposit L.E. 9 000 in a bank and the percentage of interest 10% per year. What is the amount of this sum after one year ?

4 [a] The sum of edges length of a cube is 36 cm. Find volume of this cube.

[b] Atlas of a number of cities drawn at a scale of 1 : 200 000 , if the real distance between the two cities is 48 km. Find the distance between them in this atlas.

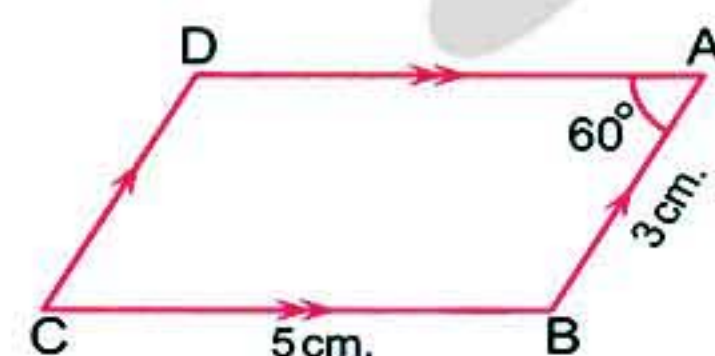
5 [a] In the opposite figure :

ABCD is a parallelogram in which $AB = 3 \text{ cm}$.

, $BC = 5 \text{ cm}$. and $m(\angle A) = 60^\circ$ Find :

(1) $m(\angle C)$

(2) The perimeter of parallelogram ABCD



[b] The following table shows the marks of 100 pupils in maths :

The sets	10 –	20 –	30 –	40 –	Sum
The frequency	25	30	25	20	100

Draw the frequency curve for this data.

17 El-Menia Governorate (2017)



Answer the following questions :

1 Choose the correct answer from those given :

[a] 500 gm. : $1\frac{1}{2}$ kg. = :

(1 : 6 or 1 : 5 or 1 : 4 or 1 : 3)

[b] If the sum of the edges length of a cube equals 24 cm.

, then its volume = cm^3

(8 or 12 or 64 or 128)

[c] $2.7 \div 0.09 = \dots\dots\dots$

(3 or 30 or 0.3 or 0.03)

Which of the following data is countable ?

(the favorite colour or the place of birth or the age or the blood species)

2 Complete the following :

[a] The two diagonals are perpendicular in each of and

[b] Three tenths of a number = %

[c] The range of the set of values : 5 , 7 , 3 , 9 , 11 =

[d] $6.284 \times 10 = \dots\dots\dots$

3 [a] If the ratio between the dimensions of rectangle is 3 : 4 and its perimeter equals 70 cm. Find its area.

[b] Ahmed draws a picture to his brother Osama with a drawing scale 1 : 40 , if the real height of Osama is 160 cm. What is his height in the picture ?

4 [a] If the cost price of a set of electric appliances is 60 000 pounds and it is sold at 12% profit. Calculate the selling price.

[b] A cube of cheese its edge length is 15 cm. it needs to be divided it into small cubes the edge length of each is 3 cm. for presenting them through meals. Calculate the number of resulting small cubes.



Final Examinations

- 5 [a] A juice case in the shape of cuboid , its base is square-shaped of side length 6 cm. and its height is 15 cm. Calculate the volume of juice which fills the case completely.

- [b] On the orphan day a group of students denoted amounts of money in pounds shown in the following table :

Money in pounds	3 –	5 –	7 –	9 –	11 –	Sum
Number of students	7	10	15	10	8	50

- (1) What is the number of students who denoted by 7 pounds and more ?
(2) Draw the frequency curve for this distribution.

18 Assiut Governorate (2017)



Answer the following questions : (Calculator is allowed)

- 1 Choose the correct answer from those given :

- [a] If $\frac{7}{13} = \frac{x}{52}$, then $x =$ (14 or 21 or 28 or 25)
 [b] 39 days \approx weeks. (5 or 6 or 7 or 8)
 [c] The opposite data are descriptive except
 (the favorite colour or the birthday or the age or the blood species)
 [d] 18 kirats : 2 feddans = (in the simplest form).
 (3 : 4 or 4 : 3 or 9 : 2 or 3 : 8)

- 2 Complete the following :

- [a] $2\frac{3}{4} \div 1\frac{3}{8} =$
 [b] If one of the angles of the parallelogram is right and two of its adjacent sides are equal in length , then it is called
 [c] An agricultural machine ploughs 14 feddans in 3.5 hours. , then the rate of performance of the machine in feddan per hour is
 [d] The range of the set of values 7 , 3 , 6 , 9 is

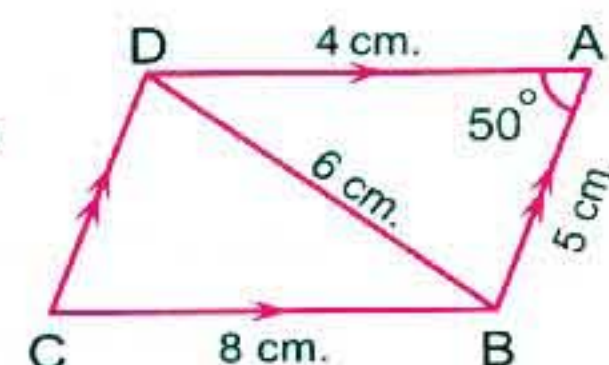
- 3 [a] Two wire pieces , the ratio between their length is 5 : 9 , if the sum of their lengths is 126 metres. Calculate the length of each piece.
 [b] A picture was take to an artificial scene with a drawing scale 1 : 100
 If the real length of a tree is 18 metres , find its length in the picture.

- 4 [a] A swimming pool , its internal dimensions are 30 , 15 and 2 metres.
405 m³ of water are poured into it. Find :

- (1) The height of water in the swimming pool.
(2) The volume of water which is needed to fill the swimming pool completely.

[b] In the opposite figure :

ABCD is a parallelogram in which
AB = 5 cm. , BC = 8 cm. , BD = 6 cm. , $m(\angle A) = 50^\circ$
Without using geometrical instruments , find :



- (1) $m(\angle ADC)$ (2) The perimeter of $\triangle BCD$

- 5 [a] A piece of building land is distributed between brothers in the ratio 7 : 5
If the share of the first one exceeds the share of the second by
80 square meter. Find the area of the land and the share of each of the
first and the second.

[b] The following table shows the age of visitors to an exhibition
within an hour of the day :

Visitor's age	10 –	20 –	30 –	40 –	50 –	The sum
Number of visitors	6	9	12	10	8	45

Draw the frequency curve for this distribution.

19 Souhag Governorate (2017)



Answer the following questions :

1 Complete the following :

- [a] The two diagonals are equal in length in each of and
[b] The ratio between 250 gm. : $\frac{3}{4}$ kg. = :
[c] If the numbers 4 , x , 12 and 18 are proportional then $x =$
[d] If the values of a frequency distribution lie between 20 , 60 , then
the range of this distribution =

2 Choose the correct answer :

- [a] The circumference of circle = ($2\pi r$ or πr^2 or πr or $3r$)
[b] The opposite data are descriptive except
(the favourite colour or the birth place or the blood species or the age)

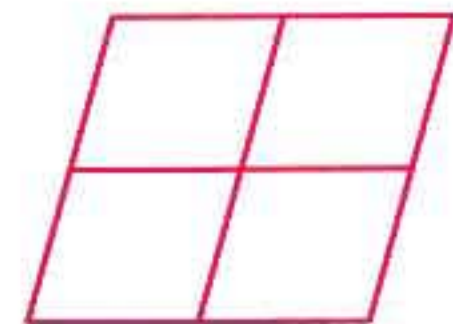


Final Examinations

- [c] The side length of a square is 3 cm. , then the ratio between its length and its perimeter equals (4 or 3 or $\frac{1}{4}$ or $\frac{1}{3}$)

- [d] In the opposite figure :

The number of parallelograms which can be obtained is



(4 or 5 or 7 or 9)

- 3 [a] If the drawing scale which is registered on a map is 1 : 500 000 and the distance between two cities on this map is 3 cm. Find the real distance between them in kilometres.

- [b] Hany , Samy and Khaled started a trade business. Hany paid 30 000 pounds. Samy paid 40 000 pounds and Khaled paid 50 000 pounds. At the end of the year the profit of the company was 6 000 pounds. Find the share of each of them from the profit.

- 4 [a] A cube of metal its edge length equals 9 cm. need to be melted down and converted into alloys in the form of cuboid with dimensions 3 cm. , 3 cm. and 1 cm. Calculate the number of alloys that can be obtained.

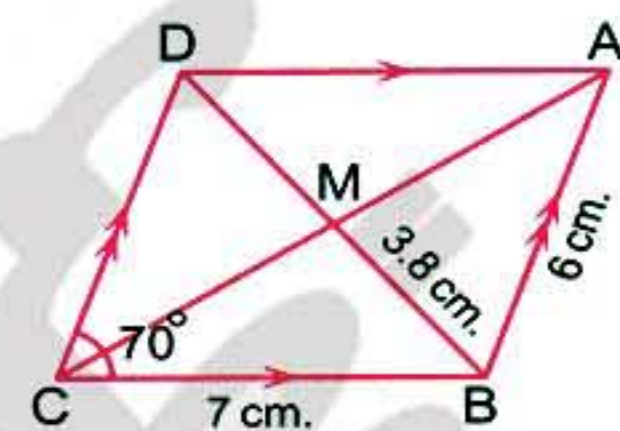
- [b] Find the buying price of goods sold for 23 000 pounds with profit percentage 15% and find the profit.

- 5 [a] In the opposite figure :

ABCD is a parallelogram in which AB = 6 cm. , BC = 7 cm. , MB = 3.8 cm. and $m(\angle C) = 70^\circ$

Without using measuring tools , calculate :

- (1) $m(\angle ADC)$ (2) The perimeter of $\triangle BCD$



- [b] The following table shows the ages of visitors to an exhibition within an hour of the day :

Visitor's age	10 –	20 –	30 –	40 –	50 –	Total
Number of visitors	6	9	12	10	8	45

- (1) What is the number of visitors whose ages are less than 40 years ?
(2) Draw the frequency curve for this distribution.



20 Qena Governorate (2017)



Answer the following questions : (Calculator is allowed)

1 Choose the correct answer :

- [a] The following data are quantitative except
(the age **or** the blood species **or** the number of children **or** the weight)
- [b] If an angle in a parallelogram is right and two adjacent sides are equal in length , then it is called
(rhombus **or** triangle **or** square **or** rectangle)
- [c] If the values of a frequency distribution lie between 20 and 60 , then the range of this distribution is (40 **or** 80 **or** 60 **or** 100)
- [d] 4.6 litres = mL. (46 **or** 460 **or** 46 000 **or** 4 600)

2 Complete the following :

- [a] If $\frac{2}{7} = \frac{x}{21}$, then $x =$
- [b] The ratio between the side length of a square and its perimeter = :
- [c] $\frac{9}{20} =$ %
- [d] If the base of a cuboid is on the shape of a square of side length 10 cm. and its height of 7 cm. , then its volume =

3 [a] A tractor ploughs 6 feddans in three hours , if another tractor ploughed 10 feddans in 4 hours , which of them is more efficiency.

[b] A cube-shaped vessel is full of oil , its inner edge is 30 cm.

(1) Calculate its capacity in litres.

(2) Calculate the price of oil if the price of one litre = 10 pounds.

4 [a] A picture was taken to a building with a drawing scale 1 : 1 000 , if the height of that building in the picture is 3 cm. , then find its real length.

[b] A metallic cube its edge length is 12 cm. is melted and converted into ingots in the shape of cuboids each of them has the dimensions 3 cm. , 4 cm. and 6 cm. Find the number of ingots that are obtained.



Final Examinations

- 5 [a] A piece of building land is distributed between two brothers in the ratio 7 : 5 , if the share of the first one exceeds the share of the second by 80 square metres , find the area of the land and the share of each of them.

[b] The following table shows the marks of 100 pupils in a month :

Marks	20 –	30 –	40 –	50 –	Total
Number of pupils	15	30	40	15	100

- (1) How many pupils get less than 40 degrees ?
(2) Draw the frequency distribution.

21 Luxor Governorate (2017)



Answer the following questions :

1 Choose the correct answer :

- [a] If the numbers 4 , x , 12 , 18 are proportional quantities , then $x = \dots\dots\dots$ (3 or 6 or 9 or 12)
[b] The measure of the straight angle = $\dots\dots\dots^\circ$ (90 or 180 or 360 or 120)
[c] The range of the values 1 , 3 , 4.4 , 5 is $\dots\dots\dots$ (1 or 3 or 4 or 5)
[d] A cube of volume 125 cm^3 , its base area = $\dots\dots\dots$ (25 cm^2 or 25 cm or 5 cm^2 or 5 cm)

2 Complete the following :

- [a] 16 kirats : 1 feddan = $\dots\dots\dots$
[b] The following data (age , length , weight , blood type) are quantitative except $\dots\dots\dots$
[c] 3 litres = $\dots\dots\dots \text{ cm}^3$
[d] The four sides are equal in length in $\dots\dots\dots$ and $\dots\dots\dots$

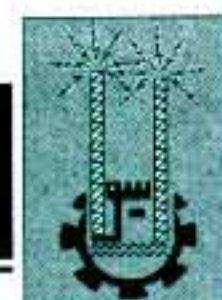
- 3 [a] Ahmed bought a flat for L.E. 150 000 and sold it with loss 5 % Find the selling price of the flat.
[b] If the drawing scale of a picture of one building is 1 : 1 000 and if the height of the building in the picture is 3 cm. , find the real height in metres.

- 4 [a] If the ratio between the length of two roads is 2 : 5 and the difference between their lengths is 21 km. , find the length of each road.
- [b] A container in the shape of a cube its inner edge length is 20 cm. , full of honey. If the price of each litre of honey is 8 pounds , find the price of the honey in container.
- 5 [a] A cartoon box in the shape of a cuboid , its inner dimensions are 50 cm. , 40 cm. and 30 cm. it is wanted to fill it with tea boxes each in the shape of a cuboid of dimensions 10 cm. , 5 cm. and 6 cm. , calculate the number of tea boxes which fill completely the cartoon box.
- [b] The following table represents the marks of 100 students in math's test :

Marks	20 –	30 –	40 –	50 –	Total
Number of students	15	30	40	15	100

- (1) Represent these data by the frequency curve.
- (2) What is the number of students who got less than 40 marks ?

22 Aswan Governorate (2017)



Answer the following questions : (Calculator is allowed)

1 Choose the correct answer :

- [a] $\frac{1}{2} = \dots\dots\dots$ (0.5 or 0.2 or 0.1 or 0.05)
- [b] 300 gm. : $1\frac{1}{2}$ kg. = $\dots\dots\dots$ (1 : 3 or 1 : 5 or 1 : 10 or 1 : 30)
- [c] If one the angles of parallelogram is right and two adjacent sides are equals in length is called $\dots\dots\dots$
(rhombus or rectangle or triangle or square)
- [d] The opposite data are quantitative except the $\dots\dots\dots$
(age or tallness or favourite colour or weight)

2 Complete the following :

- [a] $5\text{ cm}^3 = \dots\dots\dots\text{ mL}$.
- [b] $48.684 \approx \dots\dots\dots$ (to nearest hundredth)
- [c] If the values of a frequency distribution lie between (20 , 60) , then the range = $\dots\dots\dots$
- [d] If $\frac{x}{3} = 9\%$, then $x = \dots\dots\dots$

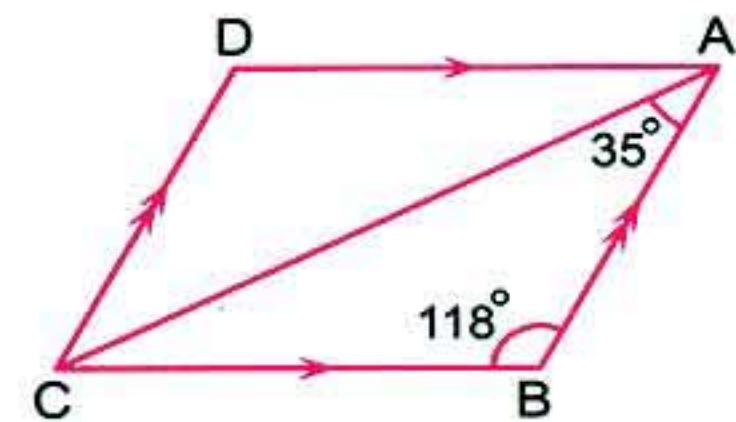


Final Examinations

- 3 [a] The price of buying refrigerator is L.E. 2 400 and price of selling is L.E 2 640 Calculate the percentage of profit.
- [b] If the distance between two cities on map is 10 cm. and the real distance between them is 120 km. Find the drawing scale of this map.
- 4 [a] A case in the shape of a cuboid , its base is a square-shaped of side length 6 cm. and its height is 10 cm. Calculate its volume.

[b] In the opposite figure :

ABCD is parallelogram where
 $m(\angle B) = 118^\circ$, $m(\angle BAC) = 35^\circ$
 Find : $m(\angle D)$, $m(\angle DAC)$



- 5 [a] If the ratio between the measures angles of triangle is 5 : 6 : 7 and the measure of the smallest angle is 50°
 Find the measure of each of the other two angles.
- [b] The following table shows the marks of 100 pupils in math exam :

Marks	10 –	20 –	30 –	40 –	50 –	Total
Number of pupils	15	25	30	20	10	100

- (1) Calculate the number of pupils who got 30 marks or more.
- (2) Draw the frequency curve for this distribution.

23 South Sinai Governorate (2017)



Answer the following questions : (Calculator is allowed)

1 Complete the following :

- [a] 18 kirats : 2 feddans = : (in the simplest form)
- [b] In the quadrilaterals , the two diagonals are equal in length in each of and
- [c] The difference between the greatest and the smallest value in set of individuals is called
- [d] The smallest prime number is

2 Choose the correct answer from those given answers :

[a] If $\frac{2}{7} = \frac{x}{21}$, then $x = \dots\dots\dots$ (6 or 7 or 12 or 21)

[b] The opposite data are descriptive except $\dots\dots\dots$
(the favorite colour or the birth place or the age or the blood species)

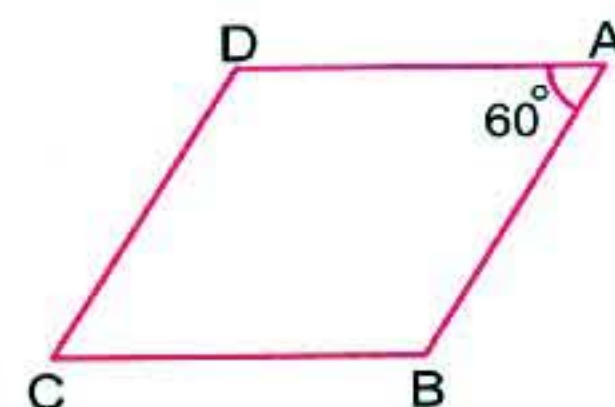
[c] Number of edges of a cuboid = $\dots\dots\dots$ edges. (4 or 6 or 8 or 12)

[d] In the opposite figure :

ABCD is a parallelogram

, $m(\angle A) = 60^\circ$

, then $m(\angle B) = \dots\dots\dots$



(30° or 60° or 90° or 120°)

3 [a] A cubic vessel of internal edge length 30 cm.

Calculate the capacity of the vessel in litres.

[b] If the distance between two cities is 180 km. and the drawing scale is 1 : 9 000 000

How long is the distance between the two cities on the map ?

4 [a] A shop keeper for electric sets sold a refrigerator for L.E. 3 180

If the percentage of his profit is 6 % Find the buying price.

[b] A primary school has 540 pupils if the ratio between the number of boys to the number of girls is 4 : 5 Calculate the number of each boys and girls.

5 [a] Find the volume of a cuboid in which the area of its base is 16 cm^2 and of height 9 cm.

[b] The following table shows the degree of 100 students in one month in math :

Marks	10 –	20 –	30 –	40 –	Total
Number of students	15	25	45	15	100

Draw the frequency curve for this distribution.



24 Red Sea Governorate (2017)



Answer the following questions :

1 Choose the correct answer :

[a] $42\,000\text{ cm}^2 = \dots\dots\dots \text{ m}^2$ (42 or 420 or 4.2 or 4 200)

[b] If the numbers 4 , x , 12 , 18 were in proportion
 , then the value of $x = \dots\dots\dots$ (6 or 9 or 15 or 18)

[c] If the sum of the edge lengths of a cube equals 60 cm.
 , then its volume equals $\dots\dots\dots \text{ cm}^3$
(1 000 or 343 or 216 or 125)

[d] The following data are descriptive except $\dots\dots\dots$
(the place of birth or the blood species or the age or the favorite colour)

2 Complete the following :

[a] The two diagonals are perpendicular in each of $\dots\dots\dots$, $\dots\dots\dots$

[b] If the values of a frequency distribution lie between (30 , 50) , then the
 range of this distribution = $\dots\dots\dots$

[c] A factory produce 8 000 bottles of soft drink in 16 hour , then the rate of
 production per hour = $\dots\dots\dots$ bottle/hour

[d] 45 days $\approx \dots\dots\dots$ to the nearest week.

3 [a] Two lorries , the load of the first is 600 kg. and the load of other is 1.5 ton
 , find the ratio between the load of the first to the load of the second in
 the simplest form. (ton = 1 000 kg.)

[b] If the length of the Suez Canal on a map of drawing scale 1 : 1 100 000
 is 15 cm. Find its real length in kilometres.

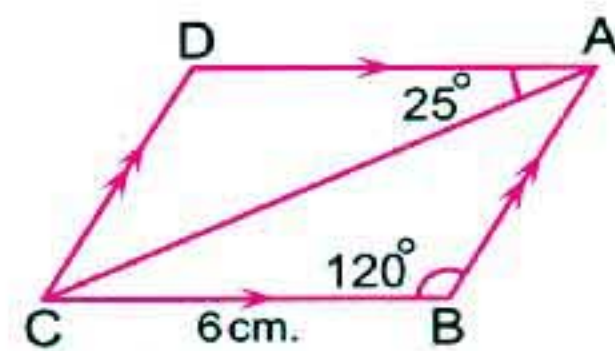
4 [a] A company for selling the electric sets it shows TV set for L.E 2 200
 If the percentage of the profit is 10 % Find the buying price of TV set

[b] A cuboid of volume is $4\,800\text{ cm}^3$ and the area of its base is 240 cm^2
 Find its height.

- 5 [a] The opposite figure shows a parallelogram in which $m(\angle B) = 120^\circ$, $m(\angle DAC) = 25^\circ$ and $BC = 6$ cm.

Calculate without using measuring tools each of :

- (1) $m(\angle D)$
- (2) $m(\angle BAC)$
- (3) The length of \overline{AD}



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- [b] The following table shows the age of visitors to an exhibition within an hour of the day :

Visitor's age	10 –	20 –	30 –	40 –	50 –	Sum
Number of visitors	6	9	12	10	8	45

Draw the frequency curve for this distribution.

25 Matrouh Governorate (2017)



Answer the following questions : (Calculator is allowed)

- 1 Complete the following :

- [a] The volume of the cube =
- [b] $1 \frac{3}{4} = \dots\dots\dots \%$
- [c] $\frac{1}{4} + \frac{3}{4} = \dots\dots\dots$
- [d] The difference between the greatest value and the smallest value in a set of individuals is called

- 2 Choose the correct answer :

- [a] If $\frac{2}{7} = \frac{x}{21}$, then $x = \dots\dots\dots$ (6 or 21 or 12 or 7)
- [b] $3 \dots\dots\dots \{1, 2, 3, 4\}$ (\subset or $\not\subset$ or \in or \notin)
- [c] In the parallelogram, the sum of the measures of any two consecutive angles = (160° or 280° or 180° or 120°)
- [d] The opposite data are descriptive except
(the favorite colour or the birthday or the age or the blood species)



هذا العمل حصري على موقع ذاكرولى التعليمى ولا يسمح بنشره فى أى مواقع أخرى
لمزيد من أعمالنا تفضل بزيارة موقعنا على الانترنت <https://www.zakrooly.com>

Final Examinations

- 3 [a] The ratio between the lengths of two roads is 2 : 5 and the difference between their lengths is 21 km. Find the length of each road.
- [b] Find the buying price of goods sold for L.E. 41 400 and the percentage of profit is 15% and find the profit.
- 4 [a] A container has 12 litres of honey , it is wanted to put them in smaller vessels (bottles) the capacity of each of them is 400 cm³. Calculate the number of bottles which is needed for that.

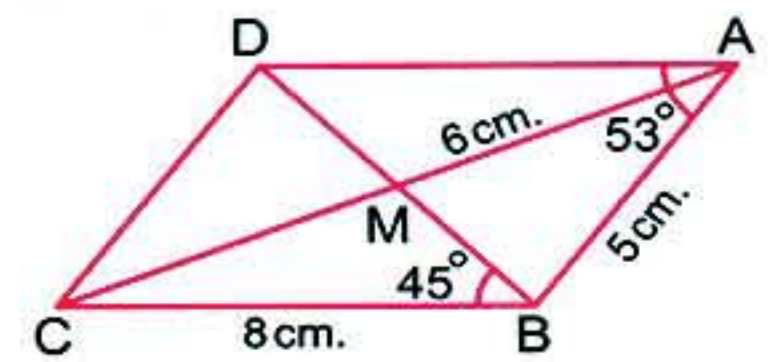
[b] In the opposite figure :

$$m(\angle A) = 53^\circ, m(\angle DBC) = 45^\circ$$

$$AM = 6 \text{ cm.}, AB = 5 \text{ cm.}, BC = 8 \text{ cm.}$$

Calculate without using measuring tools each of :

- (1) $m(\angle ABD)$
- (2) $m(\angle D)$
- (3) The length of \overline{AC}



- 5 [a] A macket of a playground of a school is drawn is drawn with drawing scale 1 : 500 the dimensions of the playground in the picture were 2 cm. and 4 cm. Find the real dimensions of the playground in metre.
- [b] The following table shows the number of hours which the pupils of a class spend daily in front of the computer :

Number of hours	1 –	2 –	3 –	4 –	5 –	6 –	Total
Number of pupils	7	11	15	6	4	2	45

Represent these data by frequency curve.

Some Governorates Examinations for the Year 2016

1 Cairo Governorate (2016)



Answer the following questions : (Calculator is allowed)

1 Complete the following :

[a] $0.4 : 0.8 = \dots\dots\dots$; $\dots\dots\dots$ (in the simplest form)

[b] The range of set of the these values : 20 , 95 , 70 and 45 equals $\dots\dots\dots$

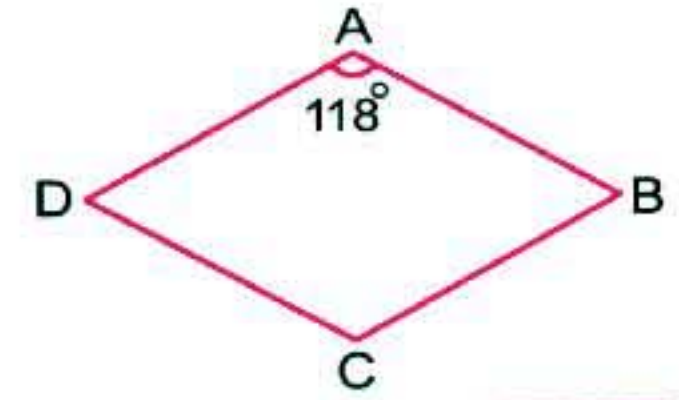
[c] If the quantities : x , 6 , 20 and 30 are in proportion , then $x = \dots\dots\dots$

[d] In the opposite figure :

ABCD is a rhombus in which

$m(\angle A) = 118^\circ$

, then $m(\angle B) = \dots\dots\dots^\circ$



2 Choose the correct answer from those given :

[a] The cuboid has $\dots\dots\dots$ edges. (12 or 8 or 6 or 4)

[b] The given data are quantitative except the $\dots\dots\dots$
(weight or length or nationality or age)

[c] $1.2 \text{ litres} + 800 \text{ cm}^3 = \dots\dots\dots$ litres. (2 or 9.2 or 200 or 2 000)

[d] If 100 grams of chocolate give 300 calories. What is the number of calories which are found in 30 grams of the same chocolate ?
(90 or 100 or 900 or 9 000)

3 [a] If the length of Suez Canal in a map of drawing scale 1 : 1 100 000 is 15 cm. , then find its real length in kilometres.

[b] Three persons involved in a business , the first paid L.E. 60 000 , the second paid L.E. 80 000 and the third paid L.E. 90 000
At the end of the year the profit was L.E. 20 700
Find the share of each person in profit.

4 [a] A man bought a flat for L.E. 100 000 , after three years he sold it for L.E. 130 000 Find the percentage of his profit.

Final Examinations

[b] In the opposite figure :

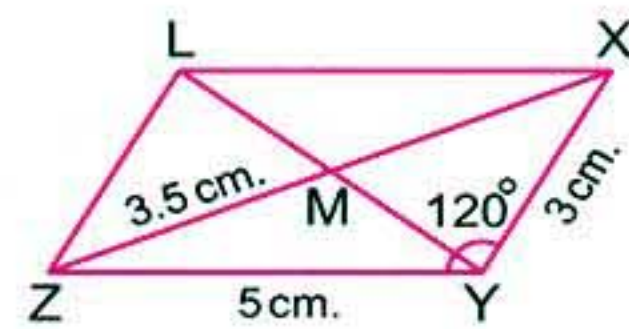
XYZL is a parallelogram in which

$m(\angle XYZ) = 120^\circ$, $XY = 3$ cm.

, $YZ = 5$ cm. and $ZM = 3.5$ cm.

Find : (1) $m(\angle XLZ)$

(2) The perimeter of the triangle XLZ



- 5 [a] A container contains 12 litres of honey. It is wanted to pour it in small bottles , the capacity of each of them is 400 cm^3 . Calculate the number of bottles which are needed for that.

[b] The following table shows the marks of 100 pupils in mathematics in a month :

The marks	20 –	30 –	40 –	50 – 60	Total
Number of pupils	10	30	40	20	100

Draw the frequency polygon for this distribution.

2 Giza Governorate (2016)



Answer the following questions : (Calculator is allowed)

1 Complete the following :

[a] If $\frac{x}{27} = \frac{2}{3}$, then $x = \dots\dots\dots$

[b] The volume of a cube of edge length 3 cm. = $\dots\dots\dots \text{ cm}^3$

[c] The ratio between the side length of a square and its perimeter = $\dots\dots\dots$: $\dots\dots\dots$

[d] The range of the set of the values : 7 , 3 , 6 , 9 and 5 is $\dots\dots\dots$

2 Choose the correct answer :

[a] $\frac{3}{4}$ litre = $\dots\dots\dots \text{ cm}^3$ (250 or 500 or 750 or 900)

[b] 20 % from 40 kg. = $\dots\dots\dots$ kg. (4 or 8 or 12 or 16)

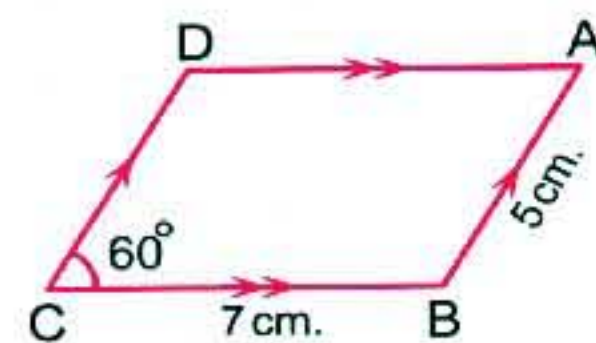
[c] The opposite data are descriptive except the $\dots\dots\dots$
(favorite colour or birth place or age or blood species)

[d] If one angle in a parallelogram is right , then it is called $\dots\dots\dots$
(rhombus or trapezium or triangle or rectangle)

- 3 [a] Find the volume of a cuboid with dimensions 12 cm. , 10 cm. , 8 cm.
 [b] Find the buying price of goods sold for L.E. 21 520 and the percentage of profit is 15 % , and find the profit.
- 4 [a] Omar took a magnified picture with a camera. If the length of an insect in the picture is 10 cm. and its real length is 2 mm. Find the drawing scale.
 [b] A load of apple fruit weights 280 kg. is distributed among three merchants. The share of the first = $\frac{2}{3}$ the share of the second and the share of the second = $\frac{4}{5}$ the share of the third. Calculate the share of each of them from this load.

- 5 [a] In the opposite figure :

ABCD is a parallelogram in which
 , AB = 5 cm. , BC = 7 cm.
 , $m(\angle C) = 60^\circ$ Find :



- (1) $m(\angle A)$ (2) $m(\angle D)$
 (3) The perimeter of the parallelogram ABCD

- [b] The following table shows the degrees of 100 students in maths test :

Marks	20 –	30 –	40 –	50 –	Sum
Number of students	15	20	50	15	100

Represent these data by the frequency curve.

3 Alexandria Governorate (2016)



Answer the following questions :

- 1 Complete the following :

- [a] $12 \times (350 + \dots) = \dots \times 350 + 12 \times 220$
 [b] If the length of an insect in the picture is 10 cm. and its real length is 2 mm. , then the drawing scale = : 1
 [c] 4.63 litre = cm^3
 [d] $\frac{\text{The range}}{\text{The length of the set}} = \dots$

Final Examinations

2 Choose the correct answer from those given :

[a] If $\{3, 5\} \subset \{3, 7, x\}$, then $x = \dots\dots\dots$ (5 or 9 or 6 or 15)

[b] The following data are quantitative except

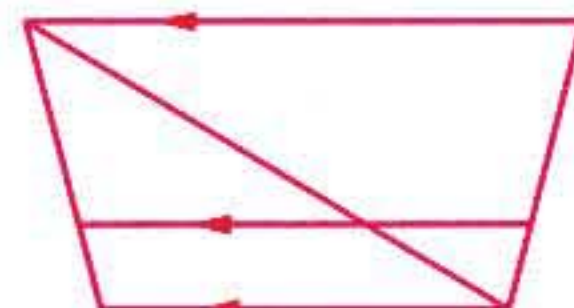
(age or weight or the favourite colour or tallness)

[c] If $a : b = 2 : 3$, $b : c = 3 : 5$, then $a : c = \dots\dots\dots$

(8 : 15 or 2 : 5 or 4 : 9 or 3 : 10)

[d] In the opposite figure :

The number of trapezoids
is



(3 or 4 or 2 or 5)

3 [a] The ratio between the length of a rectangle to its width equals 7 : 4, its perimeter is 44 metres. Find the length and the width of the rectangle and calculate its area.

[b] A tank in the shape of a cuboid of dimensions 7 m. , 5 m. and 9 m. What is the volume of water which fills its third ?

4 [a] Two machines for the manufacture of cloth , the first produces 500 metres of cloth in two hours and the second produces 600 metres of cloth in 2 hours and half.

Which of the two machines is more efficient ?

[b] A company for electrical appliances displays the TV set for 1 026 pounds. If the company sold it with profit percentage is 14 % Find the buying price for the TV set.

5 [a] A cube of clay of edge length 8 cm. Cubes of edge length of each = 2 cm. are made of it. Find the number of these cubes.

[b] The following table shows the age of visitors to an exhibition within an hour of the day :

Visitor's age	10 –	20 –	30 –	40 –	50 –	Total
Number of visitors	6	9	12	10	8	45

(1) What is the number of visitors whose ages are less than 40 years ?

(2) Draw the frequency curve for this distribution.

4 El-Kalyoubia Governorate (2016)



Answer the following questions :

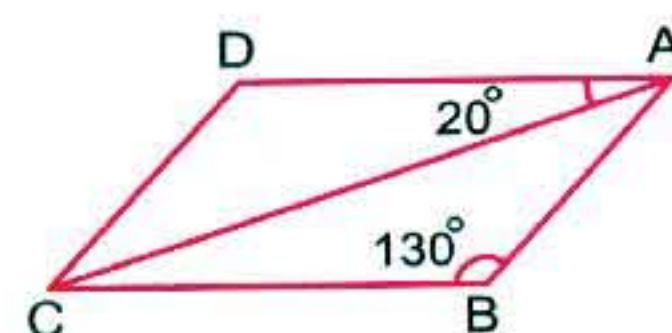
1 Complete the following :

- [a] The ratio between 18 kirats and $1\frac{1}{2}$ feddans = :
- [b] If the marks of 4 pupils in a maths test are 22 , 39 , 62 , 54 , then the range of the marks =
- [c] If 2 , x , 8 , 20 are proportional , then x =
- [d] The drawing scale =

2 Choose the correct answer :

[a] In the opposite figure :

ABCD is parallelogram
 , then $m(\angle BAC) = \dots\dots\dots$



- (50° or 20° or 30° or 120°)
- [b] $\frac{3}{4}$ litre = (75 mL. or 7.5 dm³ or 750 cm³ or 0.075 cm³)
- [c] 0.12 = % (1.2 or 12 or 0.12 or 120)
- [d] From the quantitative data is the
 (favorite colour or birth place or blood type or age)

3 [a] A car covers 240 km. in three hours. Find the rate of the speed of the car.

- [b] If a man deposited L.E. 20 000 in a bank with an annual interest 8 %
 Find the total amount he gets at the end of one year.

4 [a] A magnified picture of an insect was taken with a drawing scale 200 : 1 , if its real length is 1.2 mm. find its length in the picture.

- [b] A box in the shape of a cuboid with dimensions 30 cm. , 25 cm. and 15 cm. , if it is filled with cuboid shaped pieces of sweets of dimensions 6 cm. , 5 cm. , 3 cm. Find the number of pieces of sweets.

5 [a] The ratio between the lengths of the sides of a triangle is 2 : 3 : 4 , if the perimeter of the triangle is 108 cm.
 Find the length of each side of the triangle.

Final Examinations

[b] The following table shows the marks of 100 pupils in a maths exam :

The sets	10 –	20 –	30 –	40 –	50 – 60	Total
The frequency	15	25	30	20	10	100

Represent the previous data by the frequency curve.

5 El-Sharkia Governorate (2016)



Answer the following questions :

1 Choose the correct answer :

[a] $1 - (35\% + 25\%) = \dots\dots\dots$

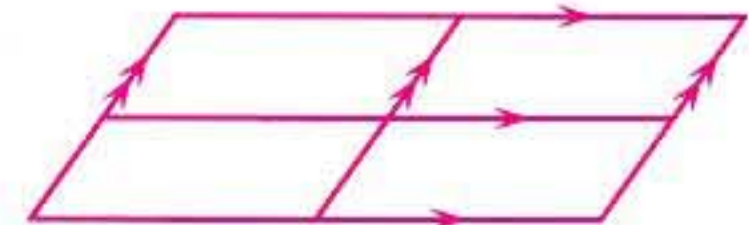
($\frac{1}{2}$ or $\frac{1}{3}$ or $\frac{2}{5}$ or $\frac{3}{4}$)

[b] $2 \text{ m}^3 = \dots\dots\dots \text{ dm}^3$

(2 or 20 or 200 or 2 000)

[c] In the opposite figure :

The number of parallelograms
is



(9 or 7 or 5 or 4)

[d] The opposite data are descriptive except

(blood species or the weight or the birth place or the social case)

2 Complete the following :

[a] The ratio between 2 kilograms and 1 500 grams in the simplest form is :

[b] If $\frac{x}{3} = 9\%$, then $x = \dots\dots\dots$

[c] In a parallelogram , the sum of the measures of any two consecutive angles =

[d] If the values of a frequency distribution lie between (20 , 60)
 , then the range of this distribution =

3 [a] If the ratio among the measurements of the angles of a triangle is 1 : 2 : 3 Find the measure for each angle and mention the type of this triangle according to the measures of its angles.

[b] If the length of the Suez Canal on a map of drawing scale 1 : 1 100 000 is 15 cm. Find its real length in kilometres.

- 4 [a] A company sells a computer set for L.E. 2 688 , if the percentage of the profit is 12 % Find the company's buying price of a computer set.

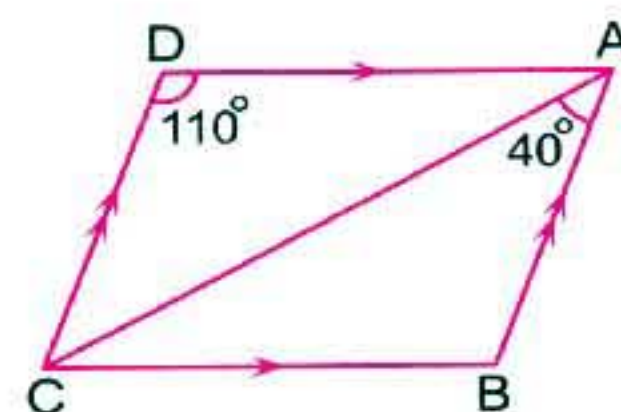
[b] In the opposite figure :

ABCD is parallelogram where

$$m(\angle D) = 110^\circ$$

$$, m(\angle BAC) = 40^\circ$$

Find : $m(\angle B)$, $m(\angle DAC)$



- 5 [a] A case in the shape of a cuboid , its base is a square shaped of side length 6 cm. and its height is 15 cm. Calculate its volume.

[b] The following table shows the marks of 100 pupils in one month in maths :

Marks	20 –	30 –	40 –	50 –	Sum
Number of pupils	15	30	40	15	100

Draw the frequency curve for this distribution.



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هذا العمل حصري على موقع ذاكرولى التعليمي ولا يسمح بنشره في أي مواقع أخرى
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Examinations from Different Governorates 2018

1 Cairo Governorate - El Sahel Educational Zone

Answer the following questions:

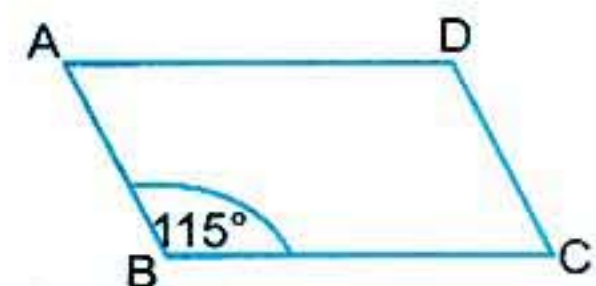
1 Choose the correct answer from those given:

- 1) The ratio between 9 months and 3 years is (9 : 3 or 3 : 9 or 1 : 4 or 4 : 1)
- 2) If the lower limit of a set is 6 and the upper limit is 10, then the center of the set is (5 or 6 or 8 or 10)
- 3) $1650 \div 25$ 1650×25 (> or = or ≤ or <)
- 4) The sum of edges of a cube is 24 cm, then its volume = cm³ (2 or 8 or 12 or 24)
- 5) The perimeter of the square = length of the side × (2 or 3 or 4 or itself)
- 6) $\frac{3}{8} =$ % (12.5 or 25 or 35 or 37.5)
- 7) $\frac{5}{4} : 3 \frac{1}{4} =$ (5 : 13 or 1 : 3 or 3 : 1 or 5 : 9)
- 8) If $\frac{x}{15} = \frac{2}{5}$ then $x + 4 =$ (6 or 8 or 10 or 12)
- 9) If the volume of a cube = 27 cm³, then the area of one of its faces = (9 or 12 or 18 or 24)
- 10) If $\frac{x + 12}{8} = 2$, then $x =$ (6 or 4 or 8 or 16)
- 11) If the perimeter of a cube base is 36 cm, then its volume = (36 or 6 or 729 or 216)
- 12) 25% from 1000 = 50 % from (2000 or 1500 or 1250 or 500)
- 13) If the real length of a tree is 6 m and its drawing length is 3 cm, then the drawing scale = (1:100 or 1:200 or $\frac{1}{300}$ or 1:600)
- 14) 2.8 dm³ = liters (2.8 or 28 or 2800 or 28000)
- 15) The following data are descriptive except (favorite color or name or age or blood species)
- 16) 263.5 cm \approx meters. (26350 or 264 or 3 or 260)



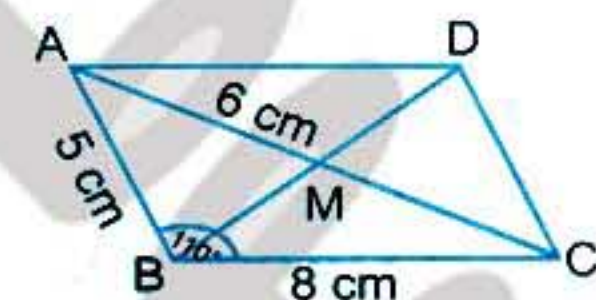
2 Complete each of the following:

- 17) The range of values 3, 5, 1, 6, 8 is
- 18) A factory produces 1600 lamps in 4 hours, the production rate per hour = lamp / hour
- 19) If $\frac{2}{7} = \frac{x}{21}$ then $x - 2 =$
- 20) Favorite color is from data.
- 21) $12.62 \div 10 =$
- 22) ABCD is a parallelogram in which $m(\angle B) = 115^\circ$,
then $m(\angle D) =$



3 Answer the following questions:

- 23) If the ratio among the share of Amal, Hala and Samira is 3 : 5 : 7 and Samira's share is 42 pounds. **What is the share of both Amal and Hala?**
- 24) A map was drawn on a scale of 1 : 500 000 and the distance between two cities was 10 cm. **Calculate the real distance between the two cities.**
- 25) Emad bought a fridge for 7200 L.E with a discount to 10%. **Calculate the price before the discount.**
- 26) A cuboid with square base, whose side length is 7 cm, and its height is 4 cm, **calculate its volume.**
- 27) **In the following shape:** ABCD is a parallelogram in which AB = 5 cm, BC = 8 cm, MA = 6 cm, $m(\angle ABC) = 110^\circ$, **calculate:**
- $m(\angle BCD)$
 - The perimeter of the triangle ADC.
- 28) The following table shows the ages of visitors to a museum during a certain period.



Draw the frequency curve for this distribution:


Visitors	10 -	20 -	30 -	40 -	50 -	Total
Frequency	7	10	15	20	13	65

2

Cairo Governorate - El Nozha Educational Zone

Answer the following questions:

1 Choose the correct answer from those given:

- 1) $\frac{4}{5} =$ (decimal form) (0.2 or 0.8 or 0.25 or 0.75)
- 2) The sum of measures of the interior angles of a triangle is (90° or 120° or 180° or 360°)
- 3) If $\frac{x}{9} = \frac{4}{3}$, then $x + 2 =$ (12 or 14 or 16 or 20)
- 4) If one angle of a parallelogram is right, then it is called a (rectangle or trapezoid or rhombus or triangle)
- 5) The ratio between 250 grams : $\frac{1}{2}$ kg = : ($\frac{1}{2} : \frac{1}{4}$ or $\frac{1}{4} : \frac{1}{2}$ or $1 : \frac{1}{4}$ or $\frac{1}{4} : 1$)
- 6) The following data are quantitative except (weight or tallness or favorite color or age)
- 7) If $\frac{7}{13} = \frac{x}{52}$, then $x =$ (14 or 21 or 28 or 25)
- 8) 39 days \simeq weeks. (5 or 6 or 7 or 8)
- 9) The following data are descriptive except (6 or 8 or 10 or 12)
(favorite color or birth place or age or blood species)
- 10) 18 kirats : 2 feddans = (in the simplest form) (3:4 or 4:3 or 9:2 or 3:8)
- 11) 4.6 liters = mL. (46 or 460 or 46000 or 4600)
- 12) If the values of a set of data lie between 20 and 60, then the range of these data is (40 or 80 or 60 or 100)
- 13) The perimeter of a circle = ($2\pi r$ or πr^2 or πr or $3r$)
- 14) In the opposite figure: the number of parallelograms
which can be obtained is (4 or 5 or 7 or 9) 
- 15) A cube of volume 125 cm^3 , its base area = (25 cm^2 or 25 cm or 5 cm^2 or 5 cm)

2 Complete each of the following:

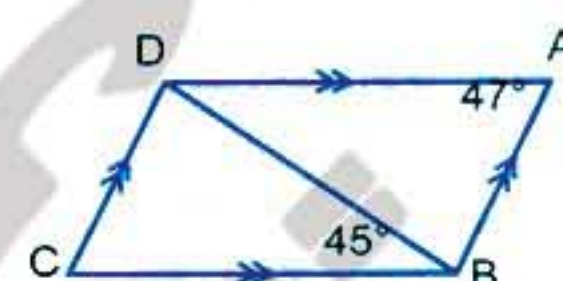
16) $\frac{3}{10} = \dots\dots\dots \%$

17) 16 kirats : 1 feddan = $\dots\dots\dots$:

18) The volume of a cuboid is 125 cm^3 and the area of its base is 25 cm^2 , then its height = $\dots\dots\dots \text{ cm}$ 19) The range of the set of values 7, 5, 3, 6 and 9 is $\dots\dots\dots$.20) If the height of the fence of the villa in the design is 5 cm and its real height is 6 meters then the drawing scale = $\dots\dots\dots$:

21) $1.5 \text{ liter} + 0.5 \text{ dm}^3 = \dots\dots\dots \text{ liter}$.

3 Answer the following questions:

22) Two wire pieces, the ratio between their length is 5 : 9. If the sum of their lengths = 126 meters. **Calculate the length of each piece.**23) If the ratio among the side lengths of a triangle is 2 : 3 : 4 and the perimeter of the triangle = 36 cm. **Calculate the lengths of each side of the triangle.**24) A car consumes 20 liters of benzene to cover a distance of 250 km. **Calculate the rate of consumption of the car to benzene.**25) Heba bought an automatic washing machine for L.E 3600 and the discount was 10%. **Calculate the original price of the washing machine before discount.**26) In the opposite figure: ABCD is a parallelogram, $m(\angle A) = 47^\circ$, $m(\angle DBC) = 45^\circ$ and $AB = 5 \text{ cm}$. **Calculate:**a) the length of \overline{DC} b) $m(\angle ABD)$.

27) The following table shows the marks of 50 students in maths test.

Marks	10 –	20 –	30 –	40 –	Total
Number of students	5	10	15	20	50

a) Draw the frequency curve of this distribution.

b) What is the number of students whose marks are less than 30?



3

Cairo Governorate - Middle Cairo Educational Zone

Answer the following questions:

1 Choose the correct answer from those given:

- 1) If 5, x , 10, 14 are proportional, then $x =$ (10 or 14 or 2 or 7)
- 2) The smallest prime number is (0 or 1 or 2 or 3)
- 3) The sum of measures of each two consecutive angles in the parallelogram = (90° or 180° or 150° or 108°)
- 4) All the following data are quantitative except (age or telephone number or color or weight)
- 5) The ratio between any side length of a square and its perimeter = (1 : 4 or 1 : 2 or 1 : 3 or 1 : 1)
- 6) $7.2 + 0.9 =$ (7.11 or 8.1 or 71.1 or 80.1)
- 7) The range of the values 1, 3, 4, 4, 5 is (1 or 3 or 4 or 5)
- 8) If the numbers 4, x , 12, 18 are proportional quantities, then $x =$ (3 or 6 or 9 or 12)
- 9) The measure of the straight angle = (90° or 180° or 360° or 120°)
- 10) $\frac{1}{2} =$ (0.5 or 0.2 or 0.1 or 0.05)
- 11) $300 \text{ gm} : 1\frac{1}{2} \text{ k.g} =$ (1 : 3 or 1 : 5 or 1 : 10 or 1 : 30)
- 12) If one of the angles of a parallelogram is right and its two adjacent sides are equal in length, then it is called a (rhombus or rectangle or triangle or square)
- 13) The cuboid has edges. (12 or 8 or 6 or 4)
- 14) $1.2 \text{ liters} + 800 \text{ cm}^3 =$ liters. (2 or 9.2 or 200 or 2000)

2 Complete each of the following:

- 15) A machine irrigates 15 feddans in 5 hours, then its rate = feddans/hours.
- 16) $250 \text{ gm} : \frac{1}{2} \text{ kg} =$: (in the simplest form)
- 17) $4.9 \text{ liters} =$ cm^3
- 18) The range of the values 7, 18, 5, 11, 9 is



19) $3 : 4 = \dots\dots\dots \%$

20) If the sum of edge lengths of a cube equals 12 cm, then its volume = $\dots\dots\dots \text{cm}^3$

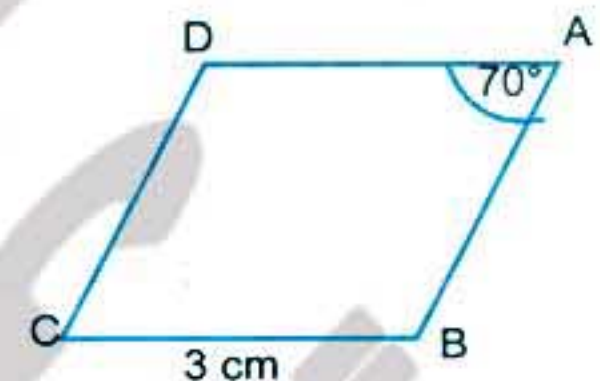
3 Answer the following questions:21) A man bought goods for L.E 4500 and he sold them with a profit 10%. **Find the selling price.**

22) In a mapping picture for some cities is drawn by a drawing scale 1 : 300000.

If the real distance between two cities is 45 km, **find the distance between them on the map.**23) Three persons set up a commercial business, the first paid L.E 40000, the second paid L.E 50000, and the third paid L.E 60000. At the end of the year, the net profit was L.E 45000. **Calculate the share of each of them from the profit.**24) A box is in the shape of a cuboid. Its internal dimensions are 25 cm, 20 cm and 30 cm. It is wanted to be filled with bars of chocolate each of them is cubic with edge length 5 cm. **Calculate the number of bars of chocolate them fill the box completely.**25) In the opposite figure: ABCD is a rhombus in which, $m(\angle A) = 70^\circ$, $BC = 3 \text{ cm}$, **without using measuring tools, find:**

1) $m(\angle C)$

2) The perimeter of the rhombus.



26) In the Orphan's Day, a group of pupils paid sums of money in pounds as shown in the following table:

The sum of money	3 –	5 –	7 –	9 –	11 –	Total
Number of pupils	7	10	15	10	8	50

Represent the previous data by the frequency curve.

4

Giza Governorate - 6th October Educational Directorate

Answer the following questions:

1 Choose the correct answer from those given:

- 1) The sum of measures of angles of the triangle = (180° or 90° or 120° or 360°)
- 2) The ratio between the two numbers $\frac{2}{3}$, $3\frac{1}{3}$ = ($1:2$ or $2:5$ or $1:10$ or $1:5$)
- 3) If the numbers 4 , x , 12 , 18 are proportional, then the value of x =
(2 or 3 or 6 or 54)
- 4) A cuboid, its dimensions 2 , 3 and 5 cm, then its volume = cm^3
(10 or 25 or 30 or 50)
- 5) All the following data are descriptive except
(favorite color or the place of birth or age or blood type)
- 6) $\frac{3}{4}$ = (in decimal form) (0.2 or 0.5 or 0.75 or 0.25)
- 7) 1500 cm^3 = liter(es). (0.15 or 15 or 1.5 or 150)
- 8) The ratio between 14 days and 3 weeks is (14:3 or 3:14 or 2:3 or 3:2)
- 9) If an agricultural machine ploughs 14 feddans in 3.5 hours, then the rate of the performance of this machine is ($\frac{1}{4}$ or $2\frac{1}{2}$ or 4 or $10\frac{1}{2}$)
- 10) The smallest number of the following is (0.5 or 0.25 or 0.125 or 0.375)
- 11) If $\frac{21}{7} = \frac{x}{2}$, then x = (6 or 21 or 12 or 7)
- 12) $4200\ 000 \text{ cm}^3$ = m^3 . (42 or 420 or 4.2 or 4200)
- 13) If $\frac{x+12}{8} = 2$, then x = (6 or 4 or 8 or 16)
- 14) 25 % from 1000 = 50% from (2000 or 1500 or 1250 or 500)
- 15) If the perimeter of a cube base is 36 cm, then its volume = cm^3 .
(36 or 6 or 729 or 216)

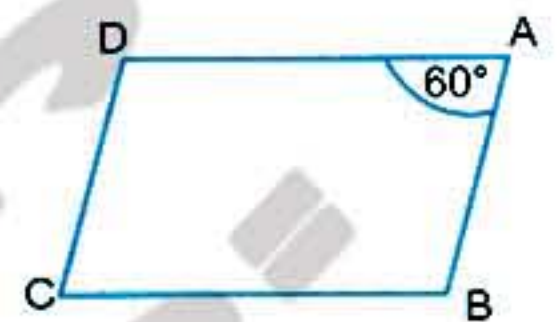


2 Complete each of the following:

- 16) The form of : $\frac{2}{3} = \frac{4}{6} = \frac{8}{12}$ is called
- 17) The ratio between the side length of a square to its perimeter is
- 18) If $a : b = 2 : 3$ and $b : c = 3 : 5$ then $a : c =$:
- 19) The area of the rectangle = \times
- 20) The two diagonals are equal in length in each of and
- 21) The range for the values 7 , 3 , 6 , 9 , 5 is

3 Answer the following questions:

- 22) If the ratio between the measures of the angles of a triangle is 2:3:4, find the measures of each angle.
- 23) A map is drawn with drawing scale 1 : 100000. If the real distance between two cities is 36 kilometers, then find the distance between them on the map.
- 24) A cube of metal, its edge length is 12 cm is melted and transformed into alloy in the shape of a cuboid, its dimensions are 3 cm and 4 cm and 6 cm. Find the number of alloys.
- 25) In the opposite figure: ABCD is a parallelogram in which $m(\angle A) = 60^\circ$, find $m(\angle B)$.



- 26) Nariman bought a refrigerator on the sale by 2185 pounds after discount 5%, find the price of it before the discount.
- 27) The following table shows the marks of 100 pupils in one month in mathematics.

The marks	20 –	30 –	40 –	50 –	Total
Number of pupils	15	30	40	15	100

- a) What is the number of the pupils who got less than 40 mark?
- b) Represent these data by the frequency curve.

5

Cairo Governorate - El-Zeitoun Educational Zone

1 Complete each of the following:

- 1) The volume of the cuboid = ×
- 2) The ratio between the circumference of a circle and its radius is
- 3) The two diagonals are perpendicular in each of and
- 4) $\frac{3}{4} = \dots\dots\dots\%$
- 5) The range of the values 19 , 11 , 9 , 33 , 54 =
- 6) If the drawing length is 2 cm and the real length is 6 m, then the drawing scale is

2 Choose the correct answer:

- 7) $\frac{2}{3} : 3 \frac{1}{3}$ in the simplest form is (1 : 2 or 2 : 15 or 2 : 5 or 1 : 5)
- 8) If 3 , 4 , x and 12 are proportional quantities, then $x = \dots\dots\dots$ (5 or 7 or 8 or 9)
- 9) The sum of measures of the consecutive angles in a parallelogram =
(60° or 90° or 180° or 360°)
- 10) The ratio between 2 feddans : 16 kirates is (3 : 1 or 1 : 3 or 1 : 8 or 8 : 1)
- 11) A car consumes 20 liters of benzene for covering 210 km. How many liters of benzene does the car consume to cover 630 km?
(60 or 120 or 80 or 100)
- 12) The following data are all quantitative except
(age or name or length or weight)
- 13) $0.35 + \frac{9}{20} = \dots\dots\dots\%$ (44 or 70 or 80 or 55)
- 14) The following data are descriptive except
(color or hobby or tallness or blood type)



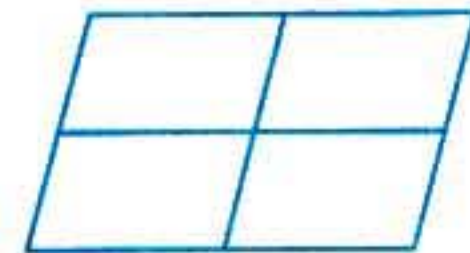
15) The sum of measures of the interior angles of triangle =

(360° or 180° or 90° or 108°)

16) If $\frac{x}{15} = \frac{2}{5}$, then $x + 4 =$

(6 or 8 or 10 or 12)

17) In the opposite figure: the number of parallelograms =



(4 or 5 or 7 or 9)

18) $12\% \div 3\% =$

(4 or 30% or 15% or 4%)

19) $5 \text{ cm}^3 =$ milliliters

(5000 or 0.005 or 5 or 50)

20) If the sum of areas of all faces of a cube equals 54 cm^2 , then its volume
= cm^3 .

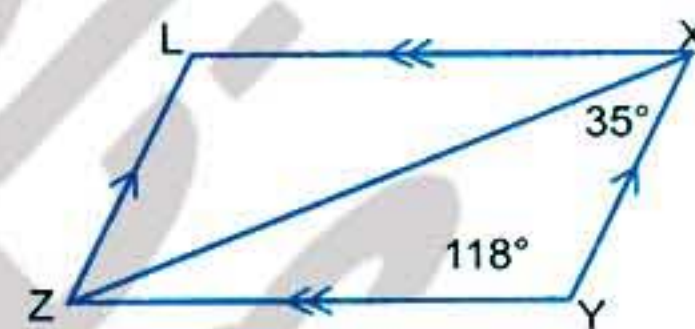
(9 or 2916 or 27 or 81)

3 Answer the following questions:

21) If the ratio between the measurements of angles in a triangle is 5 : 6 : 7
then find the measures for each angle in the triangle.

22) Sara deposited L.E 9000 in a bank. If the percentage of interest is 11 % per year,
then what is the amount of this sum after one year?

23) XYZL is a parallelogram in which $m(\angle Y) = 118^\circ$,
 $m(\angle YXZ) = 35^\circ$, find $m(\angle L)$ and $m(\angle LXZ)$.



24) Find in cm^3 the volume of the cuboid whose dimensions are 6 cm, 5 cm and 4 cm.

25) The following table shows the ages of visitors to an exhibition within an hour of the day.

Visitors' ages	10 –	20 –	30 –	40 –	50 –	Total
Number of visitors	6	9	12	10	8	45

Draw the frequency curve for this distribution.

26) A cubic vessel, its internal edge length equals 15 cm, it was filled with honey.

First: Calculate the capacity of the vessel in liter.

Second: Calculate the price of honey if the price of each liter is L.E 8.



6

Giza Governorate - Inspection of Mathematics

Answer the following questions:

1 Choose the correct answer from those given:

- 1) The sum of measures of interior angles of a triangle =
(180° or 90° or 120° or 360°)
- 2) 250 grams : $\frac{1}{2}$ kg = :
(2 : 1 or 1 : 3 or 1 : 2 or 1 : 4)
- 3) If $\frac{2}{7} = \frac{8}{x}$, then $x =$
(56 or 28 or 14 or 46)
- 4) If one angle in the parallelogram is right, then it will be a
(square or rectangle or rhombus or cube)
- 5) All the following data are descriptive except
(favorite color or the place of birth or age or blood type)
- 6) The range of the data: 7 , 3 , 6 , 9 and 5 is
(4 or 2 or 6 or 12)
- 7) 1500 cm³ = liter(s).
(0.15 or 1.5 or 15 or 150)
- 8) If the volume of a cuboid is 24 cm³ and the area of its base is 6 cm²,
then its height = cm
(3 or 4 or 12 or 18)
- 9) A machine irrigates 15 feddans in 6 hours, then the performance of this machine
is feddan / hour.
($\frac{1}{4}$ or 2 $\frac{1}{2}$ or 4 or 10 $\frac{1}{2}$)
- 10) If $\frac{2}{7} = \frac{x}{21}$, then $x =$
(6 or 21 or 12 or 7)
- 11) 4 200 000 cm³ = m³
(42 or 420 or 4.2 or 4200)
- 12) $\frac{3}{8} + \frac{1}{8} =$
($\frac{4}{16}$ or $\frac{1}{4}$ or $\frac{1}{2}$ or $\frac{3}{8}$)
- 13) If $\frac{4}{7} = \frac{x}{14}$, then $x =$
(6 or 8 or 10 or 12)
- 14) The smallest prime number is
(0 or 1 or 2 or 3)

2 Complete each of the following:

- 15) The area of the rectangle = ×



16) The ratio between the side length of the square and its perimeter =

17) Hazem drinks 21 cups of juice in a week then the rate of what he drinks per day =

18) $\frac{3}{4} = \dots\dots\dots \%$

19) 2.65 liters = cm^3

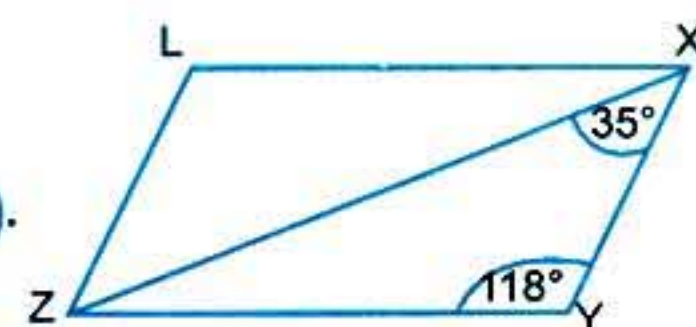
20) $\frac{1}{2} = \dots\dots\dots$ (decimal fraction)

3 Answer the following questions:

21) The ratio between $A : B = 4 : 3$ and the ratio between $B : C = 2 : 3$, then find the ratio among A , B , C.

22) Hany, Khaled and Fady are involved in a business. Hany paid 30000 L.E, Khaled paid 40000 L.E and Fady paid 50000 L.E. At the end of the year, the company lost 6000 L.E. Calculate the share of the loss each of them.

23) In the opposite figure: XYZL is a parallelogram in which $m(\angle Y) = 118^\circ$ and $m(\angle YXZ) = 35^\circ$. Find $m(\angle L)$ and $m(\angle LXZ)$.



24) A vessel in the shape of a cube, the length of its inner edge is 15 cm. If it's full of molasses, find its capacity in liters.

25) A shop owner of an electric sets sold a refrigerator by 3180 pounds. If the profit is 6%, find the buying price.

26) The following table shows the marks of 100 pupils in one of the maths monthly tests.

The marks	10 –	20 –	30 –	40 – 50	Total
Number of pupils	15	30	40	15	100

Draw the frequency curve for this distribution.

7

Giza Governorate - El Omrania Educational Zone

1 Complete each of the following:

- 1) If A is twice B, then $A : B = \dots : \dots$
- 2) $25\% = \frac{\dots}{\dots}$ (in the simplest form).
- 3) If the dimensions of a cuboid are equal, then it is called a
- 4) An agricultural tractor ploughs 6 feddans in 3 hours, then the rate of the performance of this machine is
- 5) The circumference of the circle =
- 6) The range of the set of the values 7 , 3 , 15 and 8 is

2 Choose the correct answer:

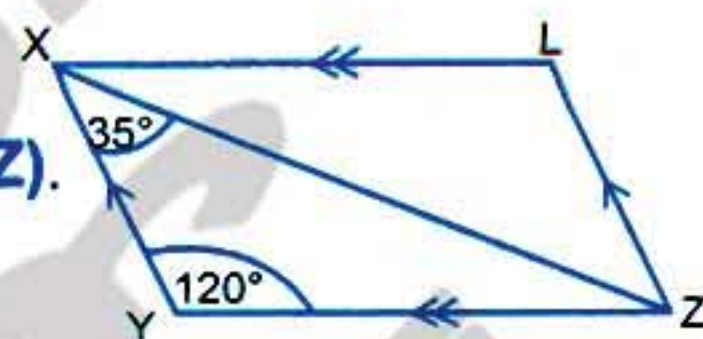
- 7) $7 \dots \{55, 77, 3\}$ (\in or \notin or \subset or \supset)
- 8) $\frac{3}{10} = \dots \%$ (10 or 50 or 30 or 20)
- 9) The two diagonals are equal in length in
(rhombus or trapezium or triangle or square)
- 10) The volume of a cube of edge length 3 cm = cm (27 or 9 or 15 or 3)
- 11) If the drawing length is 6 cm and the real length 6 meters, then the drawing scale =
(1 : 10 or 1 : 100 or 1 : 1000 or 1 : 1)
- 12) $3 \frac{3}{4} = \dots$ ($\frac{15}{4}$ or $\frac{4}{15}$ or $\frac{13}{4}$ or $\frac{10}{3}$)
- 13) $36.5 \div \dots = 3.65$ (10 or 100 or 1000 or 1)
- 14) If the numbers 3 , 5 , x and 20 are proportional, then $x = \dots$
(6 or 12 or 15 or 21)
- 15) The sum of measures of the interior angles of the triangle =
(90° or 108° or 120° or 180°)



- 16) The two diagonals are perpendicular and bisect each other in each of
(square and rhombus **or** rhombus and rectangle **or** rectangle and trapezium **or** square and rectangle)
- 17) The ratio between 250 grams : $\frac{1}{2}$ kg =
($\frac{1}{2} : \frac{1}{4}$ **or** $\frac{1}{4} : \frac{1}{2}$ **or** $1\frac{1}{4} : \frac{1}{2}$ **or** $\frac{1}{4} : 1\frac{1}{2}$)
- 18) If $\frac{x}{9} = \frac{4}{3}$, then $x + 2 =$ (12 **or** 14 **or** 16 **or** 20)
- 19) $\frac{4}{5} =$ (decimal form) (0.2 **or** 0.8 **or** 0.25 **or** 0.75)
- 20) If $\frac{4}{6} = \frac{12}{x}$, then $x =$ (16 **or** 18 **or** 20 **or** 22)

3 Answer the following questions:

- 21) Heba bought a vacuum cleaner for 220 pounds with a discount 20%. **Calculate the price before discount.**
- 22) A picture of a house was drawn with a drawing scale 1 : 1000. If the height of the house in the picture is 3 cm, **find the real height of the house.**
- 23) In a primary school, the number of pupils in the first, second and third grades is 240 pupils. If the ratio between the numbers of pupils in the three grades is 5 : 4 : 3, **calculate the number of pupils in each grade of them.**
- 24) In the opposite figure: XYZL is a parallelogram in which $m(\angle Y) = 120^\circ$, $m(\angle YXZ) = 35^\circ$, **find $m(\angle L)$ and $m(\angle LXZ)$.**



- 25) A swimming pool in the shape of a cuboid with dimensions 30 m , 40 m and 2 m. **Find its capacity in liters.**
- 26) The following table shows the numbers of hours which the pupils spend in front of the computer.

Number of hours	1 -	2 -	3 -	4 -	5 -	Total
Number of students	8	12	15	6	4	45

Represent these data by frequency curve.

8

Giza Governorate - Dokki Educational Directorate

Answer the following questions:

1 Choose the correct answer:

- 1) The range of the data set 7 , 3 , 6 , 9 , 5 is (2 or 6 or 12)
- 2) The diagonals are perpendicular in (rectangle or square or parallelogram)
- 3) If the real length is 5 m , and the drawing length is 5 cm, then the drawing scale is (1:10 or 1:1000 or 1:100)
- 4) If $\frac{5}{4} = \frac{10}{x}$, then $x =$ (5 or 8 or 4)
- 5) $\frac{3}{4} =$ (0.2 or 0.5 or 0.25 or 0.75)
- 6) If $\frac{x}{9} = 15\%$, then $x =$ (13.5 or 35 or 135 or 1.35)
- 7) $\frac{4}{5} =$ % (50 or 60 or 70 or 80)
- 8) $6500 \text{ dm}^3 =$ m^3 (6.5 or 65 or 605 or 650)
- 9) If the numbers 4 , x , 12 and 18 are proportional, then the value of $x =$ (2 or 3 or 6 or 9)
- 10) The two diagonals are equal in length in the (parallelogram or rhombus or trapezium or square)
- 11) $\frac{1}{2} =$ (0.5 or 0.2 or 0.1 or 0.05)
- 12) 39 days \simeq weeks (5 or 6 or 7 or 8)
- 13) A cube of volume 125 cm^3 , then the area of its base = (25 cm^2 or 25 cm or 5 cm^2 or 5 cm)
- 14) The measure of the straight angle = (90° or 180° or 270° or 360°)

2 Complete each of the following:

- 15) 4 kilograms : 1000 grams = : (in the simplest form)
- 16) $\frac{7}{10} =$ %
- 17) The volume of a cuboid = area of base \times



18) In a parallelogram, each two opposite angles are

19) $\frac{2}{5} + 30\% = \dots\dots\dots$

20) $65 \text{ dm}^3 = \dots\dots\dots$ liters

3 Put (✓) for the correct sentence and (X) for the wrong one:

21) The preferred type of data is quantitative. ()

22) The volume of the cube whose edge is 2 cm is 8 cm^3 . ()

23) The numbers 3 , 4 , 12 and 16 are proportional numbers. ()

24) If $x : y = 4 : 5$ and $y : z = 5 : 3$ then $x : z = 3 : 4$ ()

25) Join from column (A) what is suitable from column (B):

(A)	(B)
1) The number of faces of a cube = faces	90°
2) If the drawing scale is > 1 , then it means	$1 : 4$
3) The measure of each angle of a square =	magnification
4) The ratio between the length of the side of a rhombus to its perimeter is	6

26) In the opposite figure: ABCD is a parallelogram if $m(\angle C) = 70^\circ$:

1) $m(\angle A) = \dots\dots\dots^\circ$

2) $m(\angle B) = \dots\dots\dots^\circ$



27) The following table represents the marks of 50 students in a monthly test of mathematics.

The marks	10 –	20 –	30 –	40 – 50	Total
Number of students	6	10	20	14	50

Complete:

1) The number of students who got 30 marks or more = students.

2) The number of students who got less than 30 marks = students.



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9

Alexandria Governorate - Directorate of Education

Answer the following questions:

1 Choose the correct answer from those given:

- 1) If an agriculture tractor ploughs 28 feddans in 4 hours, then the time needed to plough 42 feddans is (4 or 6 or 7 or 8)
- 2) 55 mL = cm^3 (55 or 5.5 or 550 or 0.55)
- 3) The range of the set of values 3 , 12 , 2 , 9 , 17 and 15 is (2 or 12 or 14 or 15)
- 4) If $X = \{2, 1\}$, $Y = \{5, 1\}$, then $X \cap Y = \dots\dots\dots$ (\emptyset or $\{5, 2, 1\}$ or $\{1\}$ or $\{5, 2\}$)
- 5) $0.0635 \simeq \dots\dots\dots$ to the nearest hundredth. (0.06 or 0.063 or 0.07 or 0.63)
- 6) If the number of sets of a frequency table is 5 and the range is 10, then the length of the set = (2 or 5 or 15 or 50)
- 7) If $\frac{x+4}{2} = 5$, then $x = \dots\dots\dots$ (14 or 2 or 6 or 3)
- 8) $5 \times 7 = 5 \times 5 + 5 \times \dots\dots\dots$ (0 or 2 or 5 or 7)
- 9) $5 \text{ m}^3 = \dots\dots\dots \text{dm}^3$ (5 or 50 or 500 or 5000)
- 10) $1.2 \text{ liters} + 800 \text{ cm}^3 = \dots\dots\dots \text{liters}$ (2 or 9.2 or 200 or 2000)
- 11) If 2 , x , 8 , 20 are proportional, then $x = \dots\dots\dots$ (2 or 5 or 7 or 1)
- 12) The centimeter cube is a unit for measuring
(the perimeter or the area or the volume or the length)
- 13) $\{3, 5\} \cap \{4, 5\} = \dots\dots\dots$ ($\{3\}$ or $\{5\}$ or $\{4\}$ or $\{3, 4, 5\}$)
- 14) is quantitative data.

(The favorite color or The birth place or The blood species or The volume)

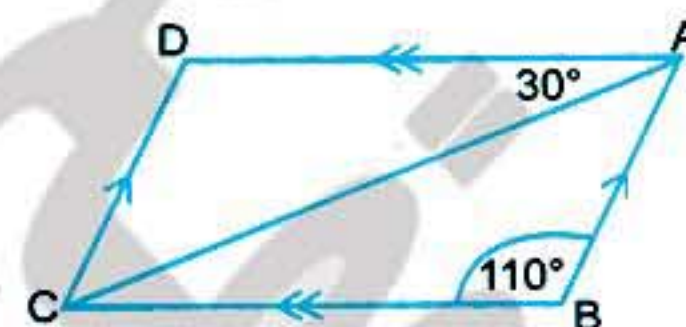


2 Complete each of the following:

- 15) The favourite color and the birth place are from data.
- 16) The ratio between the side length of the square and its perimeter = :
- 17) The parallelogram is a rectangle if
- 18) If the drawing scale < 1 this expresses
- 19) The surface area of the triangle = \times \times
- 20) If $\frac{4}{6} = \frac{12}{x}$, then $x + 2 =$

3 Answer the following questions:

- 21) a , b and c are three numbers such that the ratio $a : b = 4 : 3$ and the ratio $b : c = 2 : 3$.
Find the ratio among the three numbers a , b , c.
- 22) In one of commercial shops, the percentage of the discount on sale was 20 %. If Ahmed bought a pair of trousers and the price written on it was LE 80, find what Ahmed paid after discount.
- 23) Ahmed drew a picture for his brother Osama with a drawing scale 1 : 40. If the real height of Osama is 160 cm, what is the height in the picture?
- 24) A container has 12 liters of oil. If the oil is wanted to be put in small bottles, the capacity of each is 400 cm³, calculate the number of bottles which are needed.
- 25) The opposite figure shows a parallelogram in which $m(\angle B) = 110^\circ$ and $m(\angle DAC) = 30^\circ$.
Find $m(\angle D)$ and $m(\angle BAC)$.
- 26) The following table shows the extra money which 100 workers got in a month in a factory.



The extra money	20 –	30 –	40 –	50 –	60 –	70 –	Total
Number of workers	20	15	30	20	10	5	100

- 1) What is the number of workers who obtained extra money less than 50 pounds?
- 2) Draw the frequency curve for this distribution.

10

Qaluobia Governorate - Benha Educational Zone

1 Complete each of the following:

- 1) If the marks of 4 pupils in a maths test are 22 , 39 , 62 and 54, then the range of the marks =
- 2) The ratio between 18 hours and one day is : (in the simplest form)
- 3) If $\frac{x + 12}{6} = 4$, then $x =$
- 4) The difference between the greatest value and the smallest value in a set of individuals is called
- 5) $1500 \text{ cm}^3 =$ liters.
- 6) A machine produces 600 meters of clothes regularly in one hour and half, then the rate of production in meter per hour =

2 Choose the correct answer:

- 7) The opposite data are descriptive except
(the favorite color **or** birthday **or** age **or** blood species)
- 8) If the drawing length of an object is 2 cm and its real length equals 20 meters then the drawing scale =
(1 : 10 **or** 1 : 100 **or** 1 : 1000 **or** 1 : 10000)
- 9) 30% of a number equals
(its third **or** its three tenths **or** its three fifths **or** its three sevenths)
- 10) Look at the following pattern $\triangle \bigcirc \triangle \triangle \bigcirc \bigcirc \triangle \triangle \triangle \bigcirc \bigcirc \bigcirc \triangle$, which pattern of the following has the same previous pattern?
($\square \square \square \square \square \square \square \square \square$ **or** $\square \square \square \square \square \square \square \square \square$ **or** $\square \square \square \square \square \square \square \square \square$ **or** $\square \square \square \square \square \square \square \square \square$)
- 11) In the following figure:
ABCD is a parallelogram m ($\angle A$) = 60° , then
m ($\angle B$) = (30° **or** 60° **or** 90° **or** 120°)
- 12) The greatest time in the following is
(3600 seconds **or** 900 minutes **or** 12 hours **or** one day)
- 13) $\frac{1}{5} =$ % (10 **or** 20 **or** 30 **or** 40)
- 14) If the marks of 3 students in one exam is (27 , 36 , 57), then
the range of these marks = (30 **or** 20 **or** 40 **or** 50)



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GEM / MATH / Primary 6



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- 15) If the numbers 5 , 8 , 15 , x are proportional, then $x =$
(21 or 42 or 24 or 15)
- 16) The sum of measures of the interior angles of a triangle =
(180° or 90° or 80° or 108°)
- 17) If $\frac{x}{5} = 40\%$, then $x =$
(5 or 4 or 3 or 2)
- 18) $\frac{3}{4} =$
(0.2 or 0.75 or 0.25 or 0.5)
- 19) If 97 is the greatest value of a set and its range is 67, then the smallest value is
.....
(164 or 30 or 82 or 14)
- 20) $7.2 + 0.9 =$
(7.11 or 8.1 or 71.1 or 80.1)

3 Answer the following questions:

- 21) If the price of the packet of soap powder increased from L.E 6 to L.E 7.5,
find the percentage of the increase.
- 22) ABC is a triangle in which $AB : BC : CA = 3 : 5 : 7$, if the difference between the lengths of \overline{AB} and \overline{BC} is 4 cm, find the lengths of the sides of the triangle and its perimeter.
- 23) Three persons set up a company. At the end of the year the profit has been divided. The share of the first = $\frac{5}{3}$ the share of the second, the share of the second = $\frac{4}{3}$ the share of the third. If the share of the first is more than the share of the third by 8250 pounds, what is the share of each of them?
- 24) A container in the shape of a cube, the length of its interior edge equals 20 cm. If it's filled with molasses, calculate its capacity.
- 25) A cuboid, the perimeter of its base is 36 cm and the ratio between the length and width of its base equals 5 : 4. Find its length, width and calculate its volume if its height equals 12 cm.
- 26) The following table shows the marks of 100 students in maths in one of the months.

Marks	20 –	30 –	40 –	50 –	Sum
Number of students	15	30	40	15	100

Draw the frequency curve for this distribution.



11

Sharkia Governorate - Diarb Negm Directorate

Answer the following questions:

1 Choose the correct answer from those given:

1) The fraction which is represented by the shaded part =

$$\left(\frac{1}{2} \text{ or } \frac{1}{4} \text{ or } \frac{1}{3} \text{ or } \frac{4}{7}\right)$$



2) The number of the cube edges =

(8 or 6 or 12 or 3)

3) $0.23 \text{ m}^3 = \dots\dots\dots$ liters

(0.23 or 23000 or 0.023 or 230)

4) The ratio between 15 hours and one day in the simplest form =

(1 : 15 or 15 : 1 or 8 : 5 or 5 : 8)

5) If $\frac{4}{6} = \frac{8}{x}$, then $x + 2 = \dots\dots\dots$

(14 or 16 or 18 or 20)

6) All the following data are quantitative except

(age or length or number of sons or favorite color)

7) The following data are descriptive except

(the address or the area or the name or the birth place)

8) $\{3, 5\} \cap \{4, 5\} = \dots\dots\dots$

({3} or {5} or {4} or {3, 4, 5})

9) is quantitative data.

(The favorite color or The birth place or The volume or The blood species)

10) If 2, x , 6, 9 are proportional, then $x = \dots\dots\dots$

(4 or 6 or 3 or 5)

11) The range of the values (2, 2, 7, 13, 18) is

(4 or 5 or 11 or 16)

12) $45 \text{ dm}^3 = \dots\dots\dots$ liters.

(450 or 45 or 4.5 or 4500)

13) $65\% = \dots\dots\dots$

(65 or 0.65 or 650 or 6.5)

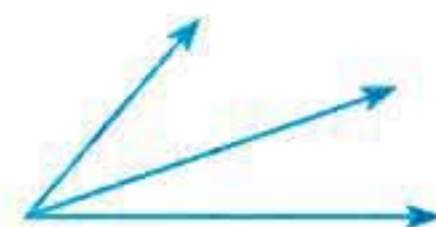
14) The sum of measures of the interior angles of a triangle =

(90° or 360° or 60° or 180°)

2 Complete each of the following:

15) In the opposite figure:

The number of acute angles =



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GEM / MATH / Primary 6

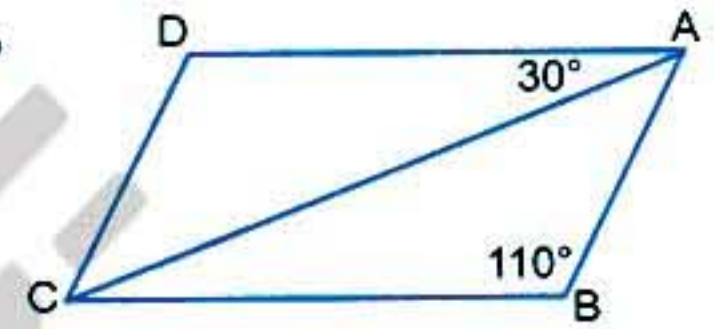


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- 16) The range of the following data 29 , 33 , 57 , 40 , 36 and 49 is
- 17) $0.12 = \dots\dots\dots\%$
- 18) A car covers a distance of 180 km. In three hours, the rate of velocity
= km /hr.
- 19) The next term of the pattern $\square \bigcirc \square \bigcirc$ is
- 20) If the range of some values = 40 and the number of sets = 10, then the length of the set =

3 Answer the following questions

- 21) In a primary school, the number of students is 560. If the number of girls
= $\frac{3}{5}$ boys, **find the number of boys and girls.**
- 22) Ahmed drew a picture for his brother Osama by a drawing scale 1 : 40. If its real
length is 160 cm, **find the length in picture.**
- 23) Khaled bought a flat by 150000 L.E. After selling it, he found the percentage of loss =
5%. **Find the selling price of the flat.**
- 24) The opposite figure represents a parallelogram, $m(\angle B) = 110^\circ$
and $m(\angle DAC) = 30^\circ$,
find $m(\angle D)$, $m(\angle BAC)$ and $m(\angle ACD)$.
- 25) A cube of cheese with edge length 15 cm, it's wanted to be divided into small cubes
of edge length 3 cm. **Find the number of resulted small cubes of cheese.**
- 26) The following table shows the studying hours by 40 students daily.



Sets	1 -	2 -	3 -	4 -	5 - 6	Sum
Number	6	3	8	12	11	40

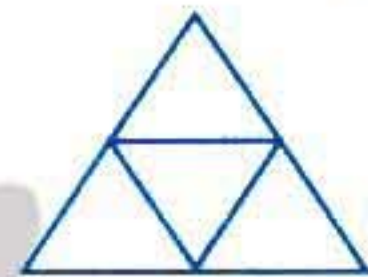
Represent these data by frequency curve.

12 Qalubia Governorate - Qalubia Educational Administration

Answer the following questions:

1 Choose the correct answer from those given:

- 1) $\frac{3}{4} =$ (decimal form) (0.2 or 0.5 or 0.25 or 0.75)
- 2) $\frac{24}{5} =$ ($4\frac{1}{5}$ or $3\frac{2}{5}$ or $4\frac{4}{5}$ or $2\frac{4}{5}$)
- 3) 8 hours : $3\frac{1}{3}$ days = (1 : 10 or 8 : 9 or 1 : 3 or 1 : 4)
- 4) If $\frac{4}{6} = \frac{12}{x}$, then $x + 2 =$ (16 or 18 or 20 or 22)
- 5) The sum of the measures of any two consecutive angles in the parallelogram = (108° or 180° or 360° or 90°)
- 6) The range of the set of values 50 , 25 , 35 and 20 is (10 or 20 or 30 or 40)
- 7) The circumference of the circle = (πr or πr^2 or $2\pi r$ or $3\pi r$)
- 8) The following data are quantitative except (age or tallness or favorite color or weight)
- 9) In the opposite figure: The number of triangles is (4 or 5 or 7 or 9)
- 10) If the real length of a tree is 6 meters, and the drawing length is 6 cm, then the drawing scale = (1 : 10 or 1 : 100 or 1 : 1000 or 1 : 600)
- 11) If $\frac{x}{6} = \frac{2}{3}$, then $x =$ (5 or 4 or 3 or 2)
- 12) The range of the set of the values 7 , 3 , 6 , 9 , 5 is (4 or 2 or 6 or 12)
- 13) 7 {17 , 707} (\subset or $\not\subset$ or \in or \notin)
- 14) $6.7 \text{ dm}^3 =$ liters. (67 or 6.7 or 670 or 6700)



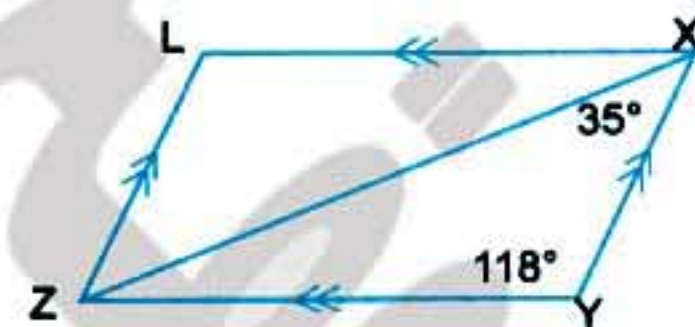
2 Complete each of the following:

- 15) The area of the triangle = $\frac{1}{2}$ the length ×

- 16) a , b and c are three numbers such that the ratio $a : b = 4 : 3$ and the ratio $b : c = 2 : 3$ then the ratio $a : c = \dots\dots\dots$:
- 17) If $\frac{x}{5} = 40\%$, then $x = \dots\dots\dots$
- 18) $1.5 \text{ liter} + 0.5 \text{ dm}^3 + 500 \text{ cm}^3 = \dots\dots\dots$ liters.
- 19) The following data (age - date - phone number) is $\dots\dots\dots$.
- 20) The number of sets = $\frac{\dots\dots\dots}{\text{the length of set}}$

3 Answer the following questions:

- 21) A triangular piece of land, the ratio between the length of its sides is $4 : 6 : 7$. If the perimeter of this piece of land equals 51 meters, **find the lengths of the sides of this land.**
- 22) A map is drawn for some cities by a drawing scale $1 : 400000$. If the real distance between two cities is 46 km, **find the distance between them on the map.**
- 23) Heba bought an electric sweeping machine for L.E 850. If the discount is 15%. **calculate the original price of the sweeping machine before discount.**
- 24) A metallic cube of edge length 12 cm is converted into ingots in the shape of cuboid, each of them of dimensions 3 , 4 and 6 cm. **Calculate the number of ingots that are obtained.**
- 25) The opposite figure:
 $m(\angle Y) = 118^\circ$, $m(\angle YXZ) = 35^\circ$,
find $m(\angle L)$ and $m(\angle LXZ)$.



- 26) The following table shows the marks of 100 students in one month in math test.

Marks	10 –	20 –	30 –	40 – 50	Total
Number of students	15	30	40	15	100

Draw the frequency curve for this distribution.

13

Gharbia Governorate - Zefta Educational Directorate

Answer the following questions:

1 Choose the correct answer from those given:

- 1) $72.45 \div 100 =$ (724.5 or 7245 or 0.7245 or 7.245)
- 2) The sum of interior angles of a triangle = (170° or 200° or 360° or 180°)
- 3) If $\frac{4}{9} = \frac{16}{x}$, then $x =$ (81 or 27 or 36 or 18)
- 4) $\frac{5}{20} =$ % (20 or 25 or 35 or 50)
- 5) If the dimensions of a cuboid are 3 cm, 4 cm and 6 cm, then its volume =
(40 cm^3 or 60 cm^3 or 52 cm^3 or 72 cm^3)
- 6) The following data are descriptive except
(color or address or age or blood type)
- 7) If $\frac{8}{x} = 0.5$, then $x =$ (8 or 12 or 16 or 21)
- 8) If the length of the diagonal of the square is 8 cm, then its area =
(64 cm^2 or 32 cm^2 or 16 cm^2 or 8 cm^2)
- 9) If the volume of a cube equals 125 cm^3 , then its base area =
(35 cm^2 or 25 cm^2 or 15 cm^2 or 5 cm^2)
- 10) The following data are quantitative except
(date or the birth place or age or grade)
- 11) $5 \text{ cm}^3 =$ milliliters. (500 or 0.005 or 5 or 50)
- 12) The ratio between 3 feddans : 40 kirats = ($\frac{3}{4}$ or $\frac{5}{9}$ or $\frac{9}{5}$ or $\frac{4}{3}$)
- 13) The range of the set of values 5, 4, 8, 12, 7 is (8 or 7 or 5 or 4)
- 14) If $\frac{3}{5} = \frac{9}{x}$, then $x =$ (3 or 5 or 15 or 27)

2 Complete each of the following:

- 15) If $a : b = 2 : 3$, $b : c = 3 : 5$, then $a : c =$
- 16) If $\frac{x}{20} = 45\%$, then $x =$

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GEM / MATH / Primary 6



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- 17) If the volume of a cube is 8000 cm^3 , then its edge length = cm
- 18) 25 kirats : 3 feddans = :
- 19) The two diagonals are equal in length and perpendicular in
- 20) The range of the set of values 15 , 13 , 12 and 8 is

3 Answer the following questions:

- 21) If the buying price of a refrigerator is L.E 3400 and its selling price is L.E 3740, **find the percent of the profit.**
- 22) A water tap is leaking 20 liters of water in 5 hours. **Find the leaking rate per hour.**
- 23) The price of a mobile phone before discount is L.E 2400. If the discount is 20 %, **what is the price after the discount?**
- 24) A tin in the shape of a cuboid. Its dimensions are 20 cm , 30 cm and 40 cm. If its filled with honey, **find the price of the honey if the price of one liter is L.E 20.**
- 25) A father divided a sum of money between Sara and Omar in the ratio 3 : 5. If the share of Omar exceeds the share of Sara by L.E 200, **find the share of each one.**
- 26) The following frequency distribution table represents the daily wages of 50 workers in a factory.

Wages	10 –	20 –	30 –	40 –	50 –	Sum
Number of workers	5	12	10	15	8	50

- 1) **Draw** the frequency curve for this distribution.
- 2) **Find** the percentage of the number of workers whose wages begin from L.E 30 to less than L.E 50.



14

Ismailia Governorate - El Qantra Gharb Educational Zone

Answer the following questions:

1 Choose the correct answer from those given:

- 1) If the perimeter of a square equals 32 cm, then its side length = cm
(3 or 5 or 7 or 8)
- 2) The prime number which is direct after number 17 is (11 or 13 or 19 or 23)
- 3) 150 cm : 3 m = : (1 : 2 or 1 : 3 or 1 : 5 or 1 : 7)
- 4) $\frac{1}{4} = \dots\dots\dots\%$ (20 or 25 or 50 or 75)
- 5) The number of the faces of a cube = (4 or 5 or 6 or 8)
- 6) The following data are descriptive except
(color or birth place or blood species or age)
- 7) The range of the set of values 7 , 3 , 6 , 9 , 5 equals (3 or 4 or 6 or 17)
- 8) 4.6 liters = mL. (46 or 460 or 4600 or 46000)
- 9) The length of an insect in the picture is 4 cm, and its real length is 2 mm, then
the drawing scale is (1 : 20 or 1 : 80 or 20 : 1 or 80 : 1)
- 10) The diagonals are perpendicular in each of
(square and rectangle or rhombus and rectangle or square and rhombus or parallelogram and rectangle)
- 11) is quantitative data.
(The favorite color or The birth place or Blood species or The age)
- 12) $6500 \text{ dm}^3 = \dots\dots\dots \text{ m}^3$ (65000 or 650 or 65 or 6.5)
- 13) 7 {17 , 707} (\subset or $\not\subset$ or \in or \notin)
- 14) $6.7 \text{ dm}^3 = \dots\dots\dots$ liters (67 or 6.7 or 670 or 6700)

2 Complete each of the following:

- 15) The sum of the measures of the interior angles of a triangle is
- 16) The ratio between 18 hours and one day : (in the simplest form)

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GEM / MATH / Primary 6



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- 17) If the number x , 18, 6, 9 are proportional, then $x =$
- 18) If the sum of lengths of all edges of a cube equals 24 cm, then the volume = cm^3
- 19) The kinds of statistic data are and
- 20) The range of the values 2, 7, 6, 9 and 5 equals

3 Answer the following questions:

- 21) A car covers 360 km in 4 hours. Calculate the rate of the covered distance per hour.
- 22) If the height of a building in a picture equals 3 cm and the real height equals 18 m. Calculate the drawing scale of that picture.
- 23) The number of pupils of a primary school is 500 pupils, 7% of them were absent one day. Calculate the number of present pupils that day.

- 24) Find the volume of a cuboid of dimensions 6 cm, 4 cm and 3 cm.

- 25) In the opposite figure:

ABCD is a parallelogram in which $m(\angle C) = 60^\circ$, $AB = 4$ cm.

Find: 1) The side length \overline{DC} 2) $m(\angle A)$



- 26) The following table shows the number of hours which 40 pupils spend in studying their lessons every day.

No. of hours	1 -	2 -	3 -	4 -	5 - 6	Total
No. of pupils	6	3	8	12	11	40

Represent these data by the frequency curve.



15

Suez Governorate - Directorate of Education

Answer the following questions:

1 Choose the correct answer from those given:

- 1) If the values of a frequency distribution lie between 5, 35, then the range of this distribution = (7 or 30 or 40 or 175)
- 2) $5600 \text{ cm}^3 = \dots\dots\dots$ liters. (5.6 or 6.5 or 56 or 560)
- 3) The following data are descriptive except
(favorite color or birth place or age or blood species)
- 4) The numbers (3, 5, 7, 9) are numbers. (odd or even or prime or otherwise)
- 5) $45\% + \dots\dots\dots\% + 30\% = 100\%$ (25 or 30 or 35 or 70)
- 6) $\frac{1}{8} = \dots\dots\dots$ (in decimal form) (0.5 or 0.25 or 0.125 or 0.375)
- 7) $\frac{x}{21} = \frac{2}{7}$, then $x - 3 = \dots\dots\dots$ (6 or 4 or 3 or 2)
- 8) The lowest common multiple of 6, 9 is (3 or 6 or 9 or 18)
- 9) $0.03 < \dots\dots\dots$ (0.02 or 0.1 or 0.009 or 0.011)
- 10) The range of the set of values 7, 3, 6, 9, 5 is (9 or 3 or 6 or 7)
- 11) $\{3, 5\} \cap \{4, 5\} = \dots\dots\dots$ ($\{3\}$ or $\{5\}$ or $\{4\}$ or $\{3, 4, 5\}$)
- 12) If $\frac{5}{9} = \frac{15}{x}$, then $x = \dots\dots\dots$ (3 or 5 or 15 or 27)
- 13) $5 + 5 + 5 + 5 = 5 \times \dots\dots\dots$ (3 or 4 or 5 or 6)
- 14) The ratio between the side length of a cube and its base perimeter =
(4 : 1 or 1 : 3 or 3 : 1 or 1 : 4)

2 Complete each of the following:

- 15) The numbers 4, x , 12, 18 are proportional, then the value of $x = \dots\dots\dots$
- 16) The statistic data which we use in our daily life are two kinds: descriptive data and data.

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GEM / MATH / Primary 6

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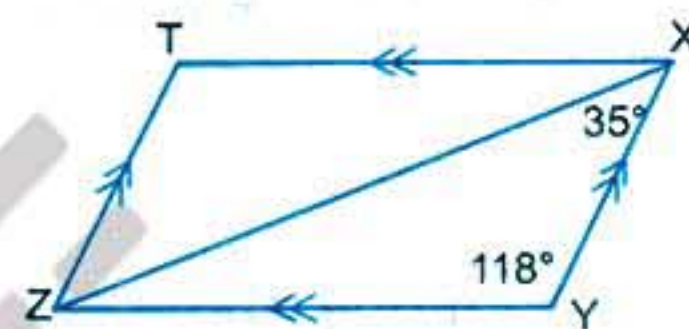


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- 17) If $a : b = 4 : 3$, $b : c = 2 : 3$, then $a : c = \dots\dots\dots$: $\dots\dots\dots$
- 18) The volume of a cube of edge length 4 cm = $\dots\dots\dots$ cm^3
- 19) $3.572 \div \dots\dots\dots = 0.3572$
- 20) The ratio between the side length of a square and its perimeter = $\dots\dots\dots$: $\dots\dots\dots$

3 Answer the following questions

- 21) A ship for transporting goods among the countries. If it consumes 25 liters of fuel to cover a distance of 100 km, **calculate the rate of consumption of fuel.**
- 22) The sum of three dimensions of a cuboid is 48 cm and the ratio among the length of its dimensions is 5 : 4 : 3. **Find its volume.**
- 23) A picture was taken to an artificial scene with a drawing scale 1 : 100. If the real length of a tree is 8 meters. **Find its length in the picture.**
- 24) A shopkeeper for electric sets sold a refrigerator for L.E 3180. If the percentage of his profit is 6%, **find the buying price.**
- 25) In the opposite figure: XYZT is a parallelogram in which $m(\angle Y) = 118^\circ$ and $m(\angle YXZ) = 35^\circ$.



Find: 1) $m(\angle T)$ 2) $m(\angle TXZ)$

- 26) The following table shows the extra money which 100 workers got in a month in a factory.

They are as follows:

The extra money	20 –	30 –	40 –	50 –	60 –	70 –	Total
Number of workers	20	15	30	20	10	5	100

Draw the frequency curve of this distribution.

16

Dakhliya Governorate - Maths Supervision

1 Complete each of the following:

- 1) 30 % of 60 = 20% of
- 2) Each what occupies room in space is called
- 3) The diagonals are perpendicular in each of
- 4) $\frac{1}{4} : \frac{1}{3} : \frac{1}{2} = \dots : \dots : 6$
- 5) The range of the set of values 7 , 3 , 6 , 9 , 5 is
- 6) If a , 3a , 5 and b are proportional, then b =

2 Choose the correct answer:

- 7) A sum of money was distributed between two persons, the first took the third of the money.
Then the ratio of distributed money between first and the second = :
(1 : 3 or 1 : 2 or 2 : 1 or 3 : 1)
- 8) All of the following are quantitative data except
(weight or age or favorite color or tallness)
- 9) If one angle of a parallelogram is right, then it is called a
(rhombus or rectangle or square or trapezium)
- 10) 75% of liter + 25% of dm^3 = (10 liters or 1000 mL or 100 dm or 100 cm)
- 11) If a is half b, and b is twice c, then a : c = (1 : 4 or 1 : 3 or 1 : 1 or 1 : 2)
- 12) 500 gm : $1\frac{1}{2}$ kg = : (1 : 6 or 1 : 5 or 1 : 4 or 1 : 3)
- 13) $2.7 + 0.09 = \dots$ (3 or 30 or 0.3 or 0.03)
- 14) Which of the following data is countable?
(favorite color or place of birth or age or blood species)
- 15) 39 days \simeq weeks. (5 or 6 or 7 or 8)

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GEM / MATH / Primary 6



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16) If $\frac{7}{13} = \frac{x}{52}$, then $x = \dots\dots\dots$ (14 or 21 or 28 or 25)

17) 18 kirats : 2 feddans = $\dots\dots\dots$: $\dots\dots\dots$ (in the simplest form) (3 : 4 or 4 : 3 or 9 : 2 or 3 : 8)

18) 4.6 liters = $\dots\dots\dots$ mL. (46 or 460 or 46000 or 4600)

19) In the opposite figure: The number of parallelograms which can be obtained is $\dots\dots\dots$.

(4 or 5 or 7 or 9)



20) The circumference of a circle = $\dots\dots\dots$

($2\pi r$ or πr^2 or πr or $3r$)

3 Answer the following questions:

21) Two machines, the first ploughs 6 feddans at 3 hours, and the second ploughs 6 kirats at 10 minutes. Which of the two machines is better in performance?

22) A cube of metal whose edge length = 12 cm needs to be melted down and converted into alloys in the form of a cube with dimensions 3 cm , 4 cm and 6 cm. Calculate the number of alloys that can be obtained.

23) Find the buying price and the profit of goods sold for 40250 pounds and the percentage of the profit is 15 %.

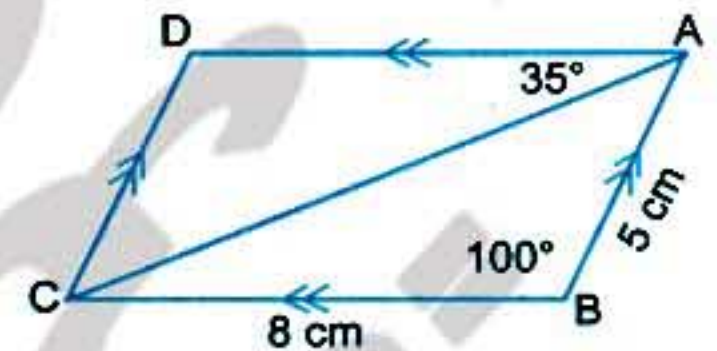
24) The opposite figure:

ABCD is a parallelogram in which AB = 5 cm, BC = 8 cm,
 $m(\angle B) = 100^\circ$ and $m(\angle DAC) = 35^\circ$

Find: 1) $m(\angle D)$

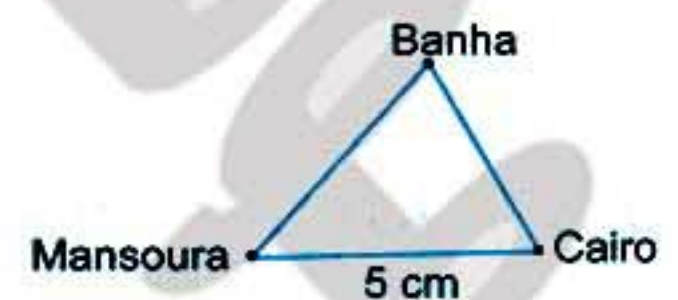
2) $m(\angle ACD)$

3) The perimeter of the parallelogram.



25) In the opposite figure:

Calculate the drawing scale if the real distance between Cairo and El-Mansoura is 350 km.



26) The following table shows sums of money in pounds paid by a group of contributors in a charity.

The sum	50 –	60 –	70 –	80 –	90 –	100 –
Number of contributors	5	7	10	12	10	7

Draw the frequency curve of this distribution.

17

Gharbia Governorate - East Tanta Educational Directorate

Answer the following questions:

1 Choose the correct answer from those given:

- 1) $87.56 \approx 87.6$ to the nearest (unit or tenth or ten or hundredth)
- 2) $\frac{4}{5} \div \frac{8}{10} = \dots\dots\dots$ ($\frac{56}{50}$ or $\frac{1}{2}$ or 1 or $\frac{2}{3}$)
- 3) $20\% \div \frac{1}{4} = \dots\dots\dots\%$ (5 or 0 or 60 or 80)
- 4) If 4, x , 12 and 18 are proportional quantities, then $x = \dots\dots\dots$ (2 or 4 or 6 or 8)
- 5) The volume of a cuboid whose dimensions are 2 cm, 3 cm and 5 cm = cm^3
(10 or 25 or 30 or 50)
- 6) The following data are quantitative expect
(tallness or weight or age or birth place)
- 7) is quantitative data. (Favorite color or Birth place or Blood species or the Volume)
- 8) $\{3, 5\} \cap \{4, 5\} = \dots\dots\dots$ ($\{3\}$ or $\{5\}$ or $\{4\}$ or $\{3, 4, 5\}$)
- 9) The circumference of a circle = ($2\pi r$ or πr^2 or πr or $3r$)
- 10) The measure of the straight angle = (180° or 90° or 360° or 120°)
- 11) A cube of volume 125 cm^3 , its base area =
(25 cm^2 or 25 cm or 5 cm^2 or 5 cm)
- 12) The range of the values 1, 3, 4, 4, 5 is (1 or 3 or 4 or 5)
- 13) $\frac{1}{2} = \dots\dots\dots$ (0.5 or 0.2 or 0.1 or 0.05)
- 14) $300 \text{ gm} : 1 \frac{1}{2} \text{ kg} = \dots\dots\dots$ (1 : 3 or 1 : 5 or 1 : 10 or 1 : 30)

2 Complete each of the following:

- 15) $\frac{1}{2} : \frac{1}{3} = \dots\dots\dots$
- 16) If $a : b = 2 : 3$, $b : c = 6 : 7$ then $a : c = \dots\dots\dots$
- 17) $0.375 = \frac{\dots\dots}{8}$
- 18) $6500 \text{ dm}^3 = \dots\dots\dots \text{ m}^3$



19) If the value of a frequency distribution lies between 29, 57, then the range of this distribution =

20) The number of the sets = $\frac{\text{the range}}{\dots\dots\dots}$

3 Answer the following questions

21) A primary school has 240 pupils in grade six. If 192 pupils of them succeeded, find the percentage of success in this school.

22) If the distance between two cities on a map is 3 cm with drawing scale 1 : 500000. Find the real distance.

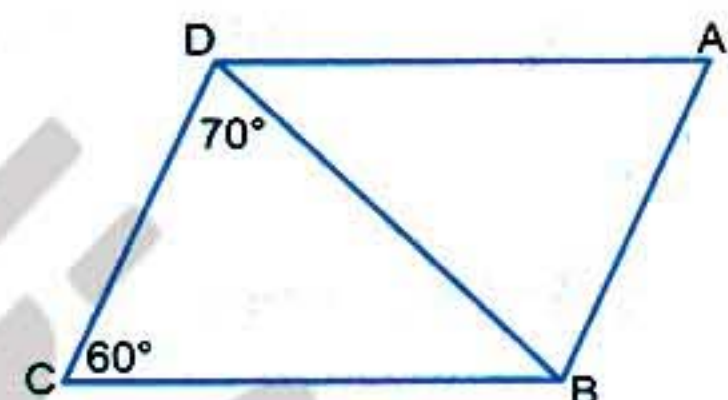
23) Two persons started a commercial business. The first paid L.E 5000 and the second paid L.E 8000. At the end of the year, the profit was L.E 3900. Calculate the share of each of them from the profit.

24) In the opposite figure:

ABCD is a parallelogram in which

$m(\angle C) = 60^\circ$ and $m(\angle BDC) = 70^\circ$

Find: 1) $m(\angle A)$ 2) $m(\angle ADB)$



25) A metallic cube of edge length 9 cm is needed to be converted into ingots in the shape of a cuboid. Each of them has dimensions of 3 cm , 3 cm and 1 cm. Calculate the number of ingots that are obtained.

26) The following table shows the ages of visitors to an exhibition within an hour of the day.

Visitors' ages	10 –	20 –	30 –	40 –	50 –	Sum
Number of visitors	6	9	12	10	8	45

1) What is the number of visitors whose ages are less than 40 years?

2) Draw the frequency curve of this distribution.

18

Beheira Governorate - Rasheed Educational Directorate

Answer the following questions:

1 Choose the correct answer from those given:

- 1) $0.3 \text{ dm}^3 = \dots \text{ cm}^3$ (3000 or 300 or 30 or 3)
- 2) $135 \times 15 \square 135 \div 15$ (< or > or = or \geq)
- 3) 27 months : 3 years = : (9 : 1 or 9 : 10 or 3 : 4 or 4 : 3)
- 4) The number of sets = + the length of the set.
(maximum value or minimum value or the range or descriptive data)
- 5) $(312 + \dots)$ is divisible by 5 (0 or 1 or 2 or 3)
- 6) is quantitative data.
(Birth place or Weight or Favorite color or Blood species)
- 7) $300 \text{ gm} : 1 \frac{1}{2} \text{ k.g} = \dots$ (1 : 3 or 1 : 5 or 1 : 10 or 1 : 30)
- 8) The following data are quantitative except the
(age or tallness or favorite color or weight)
- 9) The cuboid has edges. (12 or 8 or 6 or 4)
- 10) $1.2 \text{ liters} + 800 \text{ cm}^3 = \dots \text{ liters}$ (2 or 3 or 4 or 5)
- 11) 20% of 40 k.g = k.g (4 or 8 or 12 or 16)
- 12) $\frac{3}{4} \text{ liters} = \dots \text{ cm}^3$ (250 or 500 or 750 or 400)
- 13) If $\{3, 5\} \subset \{3, 7, x\}$ then $x = \dots$ (5 or 9 or 6 or 15)
- 14) If $a : b = 2 : 3$, $b : c = 3 : 5$ then $a : c = \dots$ (18 : 15 or 2 : 5 or 4 : 9 or 3 : 10)

2 Complete each of the following:

- 15) $\frac{9}{20} = \dots \%$
- 16) If $a : b = 2 : 3$, $b : c = 4 : 5$ then $a : c = \dots : \dots$
- 17) The parallelogram is a rectangle if

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موقع ذاكرولى التعليمي

الصف السادس الابتدائي

- 18) $\frac{x+2}{8} = \frac{3}{4}$, then $x = \dots\dots\dots$
- 19) The range of the set of values 7 , 3 , 6 , 9 , 5 and 4 = $\dots\dots\dots$
- 20) The sum of measures of the interior angles of the triangles = $\dots\dots\dots$

3 Complete each of the following:

- 21) A vessel is in the shape of a cube, the length of its interior edge is 20 cm. If it's filled with honey, **calculate the capacity of the vessel in liter.**
- 22) The ratio between the weight of Hany and the weight of Ahmed is 5 : 6. If the weight of Ahmed is 60 kg, **find the weight of Hany.**
- 23) A box in a cuboid shape, its inner dimensions are 40 cm, 30 cm and 20 cm. **How many bars of soap we need to fill the box, if the dimensions of each bar of soap is 8 cm, 5 cm and 4 cm?**
- 24) A company for selling electric sets sells a TV set for 2100 pounds. If the percentage of the profit is 12 %, **find the buying price of the TV.**
- 25) If the distance between two cities is 180 km and the drawing scale is 1 : 900000. **How long is the distance between the cities on the map?**
- 26) A group of students donate amount of money in pounds shown in the following table:

Money in pounds	3 –	5 –	7 –	9 –	11 –	Total
Number of students	7	10	15	10	8	50

Draw the frequency curve of this distribution.



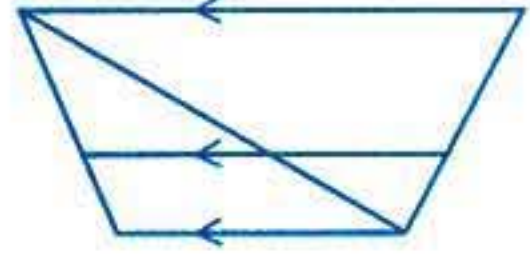
19

Matrouh Governorate - Directorate of Education

1 Complete each of the following:

- 1) The volume of a cuboid is 64 cm^3 and the area of its base is 16 cm^2 , then its height = cm
- 2) The area of the triangle = $\frac{1}{2} \times \dots \times \dots$
- 3) $65 \text{ dm}^3 = \dots$ liter
- 4) The ratio between the side length of the square and its perimeter = :
- 5) The four sides are equal in length in each of
- 6) $\frac{3}{10} = \dots \%$

2 Choose the correct answer from those given:

- 7) The range of the set of values 7 , 3 , 6 , 9 and 5 is (4 or 2 or 6 or 12)
- 8) $\frac{3}{4} = \dots$ (decimal form) (0.2 or 0.5 or 25 or 0.75)
- 9) $\frac{24}{5} = \dots$ ($4 \frac{1}{5}$ or $3 \frac{2}{5}$ or $4 \frac{4}{5}$ or $2 \frac{4}{5}$)
- 10) If one angle of a parallelogram is right, then is called a
(rectangle or square or rhombus or cube)
- 11) If $\frac{4}{6} = \frac{12}{x}$, then $x + 2 = \dots$ (16 or 18 or 20 or 22)
- 12) An agricultural tractor ploughs 28 feddans in 4 hours, the time which is needed to plough 42 feddans is (4 or 6 or 7 or 8)
- 13) In the opposite figure:
The number of trapezoids =
 (3 or 4 or 2 or 5)
- 14) If $\{3, 5\} \subset \{3, 7, x\}$, then $x = \dots$ (5 or 9 or 6 or 15)
- 15) $0.12 = \dots \%$ (1.2 or 12 or 0.12 or 120)
- 16) $\frac{3}{4}$ liter = (75 ml or 7.5 dm^3 or 750 cm^3 or 0.075 cm^3)

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17) $0.35 + \frac{9}{20} = \dots\dots\dots\%$ (44 or 70 or 80 or 55)

18) The following data are descriptive except
(color or hobby or tallness or blood type)

19) If $\frac{x}{15} = \frac{2}{5}$, then $x + 4 = \dots\dots\dots$ (6 or 8 or 10 or 12)

20) If the volume of a cube = 27 cm^3 , then the area of its one face = $\dots\dots\dots \text{ cm}^2$.
(9 or 12 or 18 or 24)

3 Answer each of the following:

21) The ratio between the area of two pieces of land is 5 : 9, if the area of one of them is more than the other by 132 m^2 , **find the area of the other land.**

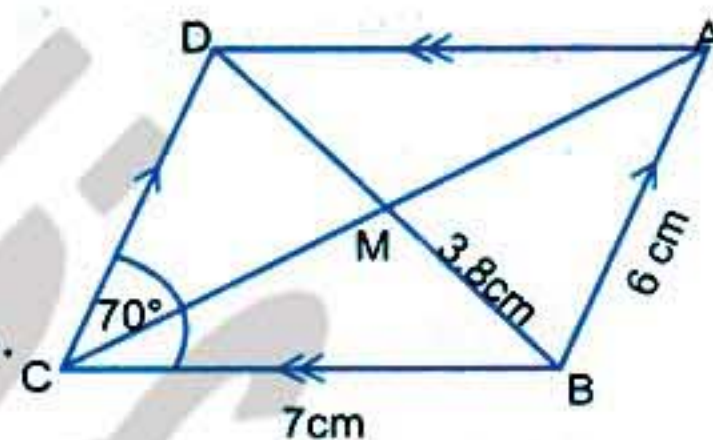
22) If the cost price of a set of electric appliances is L.E 72000 and it is sold at 12% profit, **calculate the selling price.**

23) A box contains 12 liters of oil, it is wanted to be put in small bottles, the capacity of each is 400 cm^3 . **Calculate the number of bottles which are needed.**

24) In the opposite figure:

ABCD is a parallelogram in which $AB = 6 \text{ cm}$, $BC = 7 \text{ cm}$,
 $BM = 3.8 \text{ cm}$ and $m(\angle C) = 70^\circ$, without using geometric tools.

Find: $m(\angle ADC)$ and the perimeter of $\triangle BCD$.



25) A picture was taken to an artificial scene with a drawing scale 1 : 100, if the real length of a tree is 8 meters. **Find its length in the picture.**

26) The following table shows the marks of 100 students in one month in a maths test.

Marks	10 –	20 –	30 –	40 – 50	Total
Number of students	15	30	40	15	100

Draw the frequency curve of this distribution.

20

Aswan Governorate - Directorate of Education

Answer the following questions:

1 Choose the correct answer from those given:

- 1) The smallest prime number is (1 or 2 or 3 or 4)
- 2) $16 : 64 =$ (in its simplest form) ($\frac{1}{8}$ or $\frac{1}{4}$ or $\frac{1}{3}$ or $\frac{1}{2}$)
- 3) If the following numbers 4 , 6 , 12 , x are proportional then $x =$
(8 or 12 or 16 or 18)
- 4) If one angle of a parallelogram is a right angle, then it is called a
(rectangle or square or rhombus or trapezium)
- 5) The center of the set (10 – 20) is (15 or 20 or 25 or 30)
- 6) The sum of measures of the interior angles of the triangle =
(90° or 108° or 120° or 180°)
- 7) If the numbers 3 , 5 , x , and 20 are proportional, then $x =$
(6 or 12 or 15 or 21)
- 8) $36.5 +$ = 3.65 (1 or 10 or 100 or 1000)
- 9) $45 \text{ dm}^3 =$ cm^3 (450 or 0.45 or 45000 or 45)
- 10) 6 months : 2 years = (3 : 1 or 1 : 3 or 1 : 4 or 4 : 1)
- 11) The ratio between 250 grams : $\frac{1}{2}$ k.g =
($\frac{1}{2} : \frac{1}{4}$ or $\frac{1}{4} : \frac{1}{2}$ or $1 : \frac{1}{4}$ or $\frac{1}{4} : 1$ or $\frac{1}{2} : 1$ or $1 : \frac{1}{2}$)
- 12) If the numbers 2 , 5 , 6 , x are in proportion, then $x =$
(3 or 12 or 15 or 30)
- 13) If $3 \in \{2, x\}$ then $x =$ (1 or 3 or 5 or 6)
- 14) The ratio between 27 months and 3 years is
(3 : 4 or 9 : 1 or 9 : 10 or 27 : 30)

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2 Complete each of the following:

- 15) $\frac{3}{4} = \dots\dots\dots$ (as decimal form)
- 16) If Hazem drinks 21 glasses of juice in a week then the rate of which he drinks in one day = $\dots\dots\dots$ glasses / day.
- 17) $0.12 = \dots\dots\dots\%$
- 18) $85 \text{ dm}^3 = \dots\dots\dots$ liter
- 19) Height, age and weight represent $\dots\dots\dots$ data.
- 20) The range of values 7 , 3 , 6 , 9 , 5 equals $\dots\dots\dots$

3 Complete each of the following:

- 21) If the ratio between the lengths of two roads is 2 : 5 and the difference between the lengths of two roads is 21 km. **Find the length of each road.**
- 22) If the length of a fence of a villa in a design is 5 cm, and its real height length is 6 m. **Find the drawing scale of the length.**
- 23) If the price of a T- shirt is 65 pounds and it has a discount of 15 % . **Find its price after discount.**
- 24) A cuboid its volume is 64 cm^3 and its base area is 16 cm^2 . **Find the height of the cuboid.**

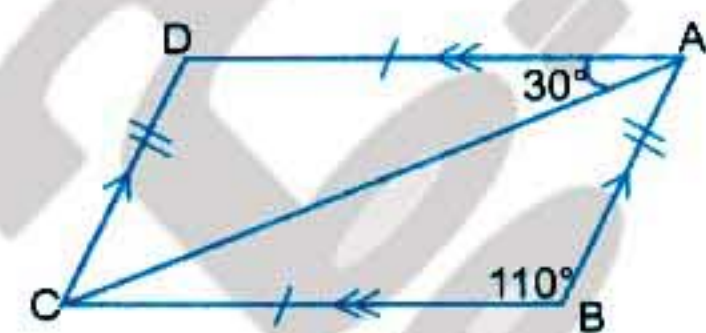
- 25) In the opposite figure:

ABCD is a parallelogram:

$m(\angle B) = 110^\circ$ and $m(\angle DAC) = 30^\circ$

Find:

- 1) $m(\angle D)$ 2) $m(\angle BAC)$



- 26) In the following table represents the degrees of 50 pupils in one month of mathematics test.

The degree	10 –	20 –	30 –	40 – 50	Sum
Number of pupils	5	15	20	10	50

Draw the frequency curve of this distribution.

21

Kafr El-Sheikh Governorate - Directorate of Education

1 Complete each of the following:

- 1) Birth place is data.
- 2) The area of the parallelogram =
- 3) $\frac{1}{2}$ kilometer : 250 meters = :
- 4) The volume of the cuboid = \times
- 5) A circle of diameter length 14 cm, its circumference equals ($\pi = \frac{22}{7}$)
- 6) The ratio between the side length of an equilateral triangle and its perimeter
= :

2 Choose the correct answer from those given:

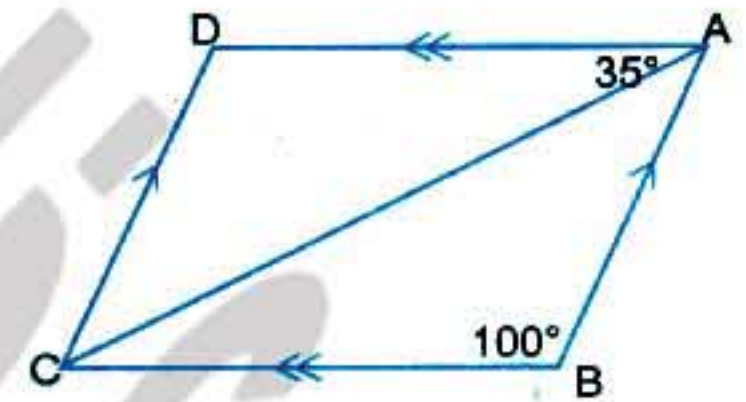
- 7) 3 {1, 2, 3} (\in or \notin or \subset or \supset)
- 8) The range of the set of the values 50, 25, 35, 20 is (10 or 20 or 30 or 40)
- 9) $\frac{3}{10} =$ % (20 or 30 or 40 or 50)
- 10) If 4, 6, 12, x are proportional numbers, then $x + 2 =$
(16 or 18 or 20 or 22)
- 11) $12000 \text{ cm}^3 =$ dm^3 (11 or 12 or 13 or 15)
- 12) If the range is 40 and the length of the set is 5, then the number of sets =
(5 or 6 or 7 or 8)
- 13) If $\frac{x}{15} = \frac{2}{5}$, then $x + 4 =$ (6 or 8 or 10 or 12)
- 14) All the following data are quantitative except the
(length or weight or volume or color)
- 15) $5 \text{ cm}^3 =$ milliliters. (5000 or 0.005 or 5 or 50)
- 16) $12\% + 3\% =$ (4% or 36% or 15% or 4)
- 17) If one of the angles of a parallelogram is right, then it will be
(square or rhombus or rectangle or trapezium)
- 18) If Hazem drinks 21 glasses of milk weekly, then the rate of what he drinks daily
is (3 glasses or 7 glasses or 14 glasses or 20 glasses)



- 19) If $\frac{8}{x} = 0.5$, then $x = \dots\dots\dots$ (8 or 12 or 16 or 21)
- 20) If the volume of a cube equals 125 cm^3 , then its base area = $\dots\dots\dots$
(35 cm^2 or 25 cm^2 or 15 cm^2 or 5 cm^2)

3 Answer the following:

- 21) The ratio between the lengths of the sides of a triangle is $2 : 3 : 4$, if the perimeter of the triangle is 54 cm . Find the length of each side of the triangle.
- 22) If the length of the Suez Canal on a map of drawing scale $1 : 1100000$ is 15 cm . Find its real length in kilometers.
- 23) Khaled bought a flat for L.E 150000 . He sold it at 5% loss. Calculate the selling price of the flat.
- 24) In the opposite figure:
ABCD is a parallelogram in which
 $m(\angle ABC) = 100^\circ$, $m(\angle DAC) = 35^\circ$,
Find: $m(\angle ADC)$ and $m(\angle ACD)$
- 25) A container has 12 liters of honey. If we want to put them in small bottles, the capacity of each is 400 cm^3 . Calculate the number of bottles which are needed for that.
- 26) The following table shows the number of hours which spent by 40 pupils to study their lessons daily.



Number of hours	1 -	2 -	3 -	4 -	5 - 6	Total
Number of pupils	6	3	8	12	11	40

Represent these data using the frequency curve.

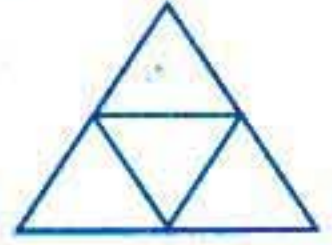
22

Ben Suif Governorate - Beni Suif Educational Directorate

1 Complete each of the following:

- 1) Area of square = side length \times
- 2) If one angle of a parallelogram is right, then it is called a
- 3) The ratio between the two numbers 16 , 64 = : (in the simplest form)
- 4) A wooden box in the form of a cube, its external volume is 1000 cm^3 , its capacity is 729 cm^3 , then the volume of the wood of the box = cm^3
- 5) The kinds of statistics data are : data and data
- 6) The rate of production of a factory produces 1000 juice cans in 4 hours = cans / hour

2 Choose the correct answer from those given:

- 7) $\frac{1}{5} =$ % (10 or 20 or 30 or 40)
- 8) If the marks of 3 students in one exam is (27 , 36 , 57), then the range of these marks = (30 or 20 or 40 or 50)
- 9) The following data are quantitative except
(age or telephone number or birthday date or favorite color)
- 10) The sum of measures of the interior angles of a triangle =
(180° or 90° or 80° or 108°)
- 11) The number 235 is divisible by (2 or 3 or 5 or 7)
- 12) If the number 5 , 8 , 15 , x are proportional then $x =$ (21 or 42 or 24 or 15)
- 13) The circumference of the circle = (πr or πr^2 or $2\pi r$ or $3\pi r$)
- 14) The following data are descriptive except
(address or tallness or favorite color or name)
- 15) In the opposite figure : the number of triangles =
(4 or 5 or 7 or 9) 
- 16) If $\frac{4}{6} = \frac{12}{x}$, then $x =$ (16 or 18 or 20 or 22)

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GEM / MATH / Primary 6

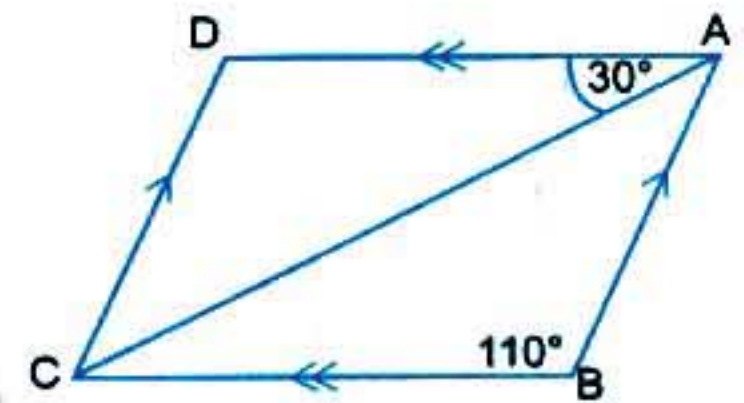


هذا العمل حصري على موقع ذاكرولى التعليمي ولا يسمح بنشره فى أى مواقع أخرى
لمزيد من أعمالنا تفضل بزيارة موقعنا على الانترنت <https://www.zakrooly.com>

- 17) $\frac{3}{4} = \dots\dots\dots$ (in the decimal form) (0.2 or 0.5 or 0.75 or 0.25)
- 18) The ratio between $\frac{1}{2}$ k.g : 700 gm = $\dots\dots\dots$ (2 : 7 or 5 : 7 or 7 : 5 or 50 : 7)
- 19) 215 is a number that is divisible by $\dots\dots\dots$ (4 or 5 or 6 or 7)
- 20) If $\frac{2}{7} = \frac{x}{21}$, then $x = \dots\dots\dots$ (6 or 7 or 12 or 21)

3 Answer the following:

- 21) If the ratio between the heights of three buildings is 3 : 4 : 5 and if the height of the first buildings is 12 meters. **Calculate the height of the second and third building.**
- 22) If the buying price of some electric sets is L.E 72 000 and they were sold at 12% profit. **Calculate the selling price.**
- 23) In the opposite figure:
ABCD is a parallelogram in which
 $m(\angle B) = 110^\circ$, $m(\angle DAC) = 30^\circ$,
Find: $m(\angle D)$ and $m(\angle ACD)$
- 24) 10 liters of water were poured in a vessel in the shape of a cuboid, its base is square of side length 25 cm. **Find the height of the water in the vessel.**
- 25) An engineering design for a villa is made. If the height of the fence of the villa in the design 5 cm and its real height is 3 m. **Find the drawing scale.**
- 26) The following table shows the marks of 100 students in one month in maths test.



Marks	10 –	20 –	30 –	40 – 50	Sum
Number of students	15	30	40	15	100

Draw the frequency curve for this distribution.

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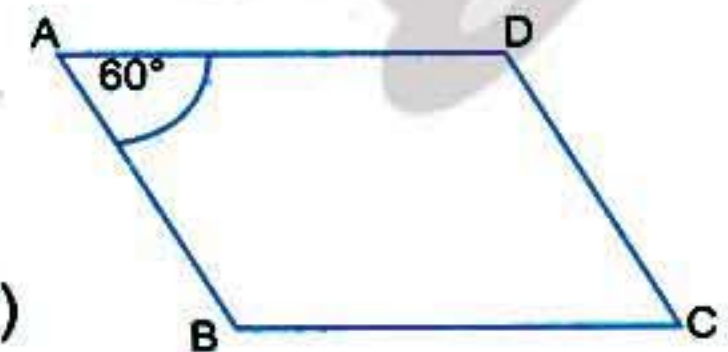
Sohag Governorate - Grga Educational Directorate

1 Complete each of the following:

- 1) The area of the triangle = $\frac{1}{2}$ the base length \times
- 2) $\frac{3}{4} =$ (decimal form).
- 3) $\frac{3}{10} =$ %
- 4) If $\frac{2}{3} = \frac{10}{x}$, then $x =$
- 5) = maximum value - minimum value.
- 6) If the volume of a cuboid equals 64 cm^3 and its base area is 16 cm^2 , then its height = cm

2 Choose the correct answer from those given:

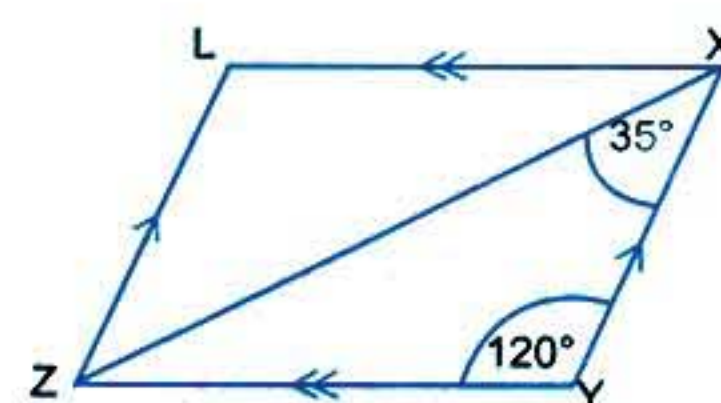
- 7) $250 \text{ gm} : \text{kg} =$ (1 : 4 or 1 : 2 or 2 : 1 or 3 : 4)
- 8) If $\frac{x}{5} = 40\%$, then $x =$ (2 or 4 or 5 or 8)
- 9) $65 \text{ dm}^3 =$ liters (6.5 or 65 or 650 or 6500)
- 10) If $\frac{75}{100} = \frac{7.5}{\dots}$ (150 or 75 or 50 or 10)
- 11) The sum of measures of each two consecutive angles of a parallelogram = (180° or 90° or 60° or 45°)
- 12) is from the quantitative data.
(Color or Age or Birth place or Blood species)
- 13) The ratio between $\frac{1}{2} \text{ kg} : 700 \text{ gm} =$ ($2 : 7$ or $5 : 7$ or $7 : 5$ or $50 : 7$)
- 14) $\frac{1}{5} =$ (decimal form) (0.2 or 0.5 or 0.75 or 0.25)
- 15) If $\frac{2}{7} = \frac{x}{21}$, then $x =$ (6 or 7 or 12 or 21)
- 16) In the opposite figure: ABCD is a parallelogram,
 $m(\angle A) = 60^\circ$,
then $(\angle B) =$ (30° or 60° or 90° or 120°)
- 17) The range of the values 7 , 3 , 6 , 9 , 5 is (4 or 2 or 6 or 8)



- 18) If $\frac{x}{5} = 40\%$, then $x + 3 = \dots\dots\dots$ (5 or 6 or 7 or 8)
 19) $65 \text{ m}^3 = \dots\dots\dots$ liters (60 or 65 or 70 or 65000)
 20) $\frac{1}{4} = \dots\dots\dots$ (0.2 or 0.5 or 0.25 or 0.75)

3 Answer the following:

- 21) If Hassan drinks 21 glasses of juice weekly. Calculate the rate of what he drinks daily.
 22) Find the value of x if 3, 4, 9, x are proportional.
 23) If the distance between two cities on a map is 3 cm and the real distance between them is 9 km. Find the drawing scale.
 24) In the opposite figure XYZL is a parallelogram in which $m(\angle Y) = 120^\circ$, $m(\angle YXZ) = 35^\circ$, (without measuring):
 Find: 1) $m(\angle L)$ 2) $m(\angle LXZ)$
 25) A container has 12 liters of honey, is wanted to be put in smaller vessels (bottles) the capacity of each is 400 cm^3 . Calculate the number of bottles which are needed for that.
 26) The following table shows the marks of 50 students in mathematics.



Marks	10 –	20 –	30 –	40 – 50	Sum
Number of students	5	15	20	10	50

- 1) Draw the frequency curve for this distribution.
 2) What is the number of students who got less than 30 marks?
 3) What is the number of students who got 40 marks and more?

24 Assiut Governorate - Administration of Distinguished & Governmental Language Schools

Answer the following questions:

1 Choose the correct answer from those given:

1) $4 \frac{1}{8} \times 2 \frac{2}{3} = \dots\dots\dots$ (1 or 10 or 11 or 111)

2) The ratio between the side length of square and its perimeter equals $\dots\dots\dots$
(1 : 4 or 4 : 1 or 3 : 1 or 1 : 3)

3) If one angle of a parallelogram is right, then it is called a $\dots\dots\dots$
(square or rhombus or cube or rectangle)

4) $\frac{3}{4} = \dots\dots\dots\%$ (0.75 or 75 or 750 or 7.5)

5) $48.684 \simeq \dots\dots\dots$ (to nearest hundredth). (48.68 or 48.7 or 48 or 48.69)

6) The following data are descriptive except $\dots\dots\dots$
(color or blood type or age or hobby)

7) $65 \text{ dm}^3 = \dots\dots\dots$ liters (560 or 650 or 65)

8) $\frac{1}{2} = \dots\dots\dots$ (0.5 or 0.2 or 0.1 or 0.05)

9) 39 day $\simeq \dots\dots\dots$ weeks (5 or 6 or 7 or 8)

10) The range of the set of the values 7 , 3 , 9 , 5 , 6 is $\dots\dots\dots$ (4 or 2 or 6 or 12)

11) A cube of volume 125 cm^3 , then the area of its base = $\dots\dots\dots$
(25 cm^2 or 25 cm or 5 cm^2 or 5 cm)

12) The following data are quantitative except $\dots\dots\dots$
(the degree or date of birth or age or blood species)

13) If $\frac{4}{6} = \frac{12}{x}$, then $x = \dots\dots\dots$ (10 or 18 or 20 or 22)

14) The circumference of circle = $\dots\dots\dots$ (πr or πr^2 or $2\pi r$ or $3\pi r$)

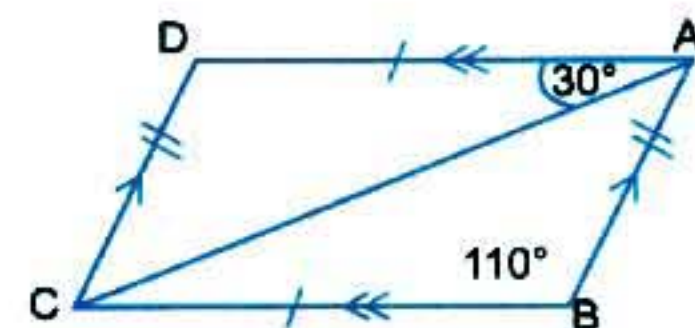
2 Complete each of the following:

15) If $\frac{2}{7} = \frac{8}{x}$, then $x = \dots\dots\dots$

16) If $A : B = 4 : 3$, $B : C = 2 : 3$ then $A : C = \dots\dots\dots$



- 17) If the marks of 6 students in an exam is 29 , 33 , 57 , 40 , 36 , 49, then the range of these marks =
- 18) The opposite figure shows a parallelogram in which:
 $m(\angle B) = 110^\circ$, $m(\angle DAC) = 30^\circ$
Find: $m(\angle BAC)$
- 19) The longest cord in the circle is
- 20) The height is data



3 Answer the following:

- 21) If the ratio between the lengths sides of triangle is 2 : 3 : 4 and its perimeter is 54 cm then **find the length of each side of the triangle.**
- 22) If the length of the Suez Canal on a map of drawing scale 1 : 1100 000 is 15 cm.
Find its real length in kilometers.
- 23) Nada bought an automatic washing machine for L.E 3600 and the discount was 10%
calculate the original price of the washing machine before the discount.
- 24) A sweet case in the shape of a cuboid, its internal dimensions are 21 cm , 18 cm and 6 cm is wanted to be filled with pieces of chocolate, each of them is a cuboid with dimensions 3 cm , 3 cm and 1 cm. **Calculate the number of chocolate pieces which fill the case completely.**
- 25) A cube-shaped vessel, its internal edge length is 30 cm is filled with food oil.
 1) **Calculate the capacity of the vessel.**
 2) If the price of one liter of food oil is 9.5 pounds, **calculate the price of the whole amount of oil.**
- 26) The following table shows the number of hours spent by 46 pupils to study their lessons daily.

Number of hours	1 –	2 –	3 –	4 –	5 – 6	Total
Number of pupils	6	3	8	12	11	40

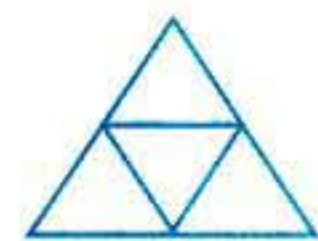
Represent these data using the frequency curve.

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Qena Governorate - Deshna Directorate

1 Choose the correct answer from those given:

- 1) The following data are quantitative expect
(age **or** weight **or** favorite color **or** length)
- 2) $\frac{3}{4}$ liter =
(75 mm **or** 750 cm³ **or** 7.5 dm³ **or** 0.075 m³)
- 3) The ratio between 27 months, 3 years is
(1 : 9 **or** 3 : 4 **or** 10 : 9 **or** 27 : 30)
- 4) If one of the angles of the parallelogram is right and the two adjacent sides are equal in length, then this shape is called (rhombus **or** square **or** triangle **or** rectangle)
- 5) $\frac{24}{5} = \dots\dots\dots$ (4 $\frac{1}{5}$ **or** 4 $\frac{4}{5}$ **or** 3 $\frac{2}{5}$ **or** 2 $\frac{4}{5}$)
- 6) The range of the values 50 , 25, 35 and 20 is (10 **or** 20 **or** 30 **or** 70)
- 7) In the opposite figure: the number of triangles =
(4 **or** 5 **or** 7 **or** 9)
- 8) If the real length of a tree is 6 m and the drawing length is 6 cm, then the drawing scale =
(1 : 10 **or** 1 : 100 **or** 1 : 1000 **or** 1 : 600)
- 9) $\frac{4}{5} = \dots\dots\dots$ % (50 **or** 60 **or** 70 **or** 80)
- 10) 6500 dm³ = m³ (6.5 **or** 65 **or** 605 **or** 650)
- 11) The volume of a cube of edge length 3 cm = cm³ (8 **or** 27 **or** 64 **or** 125)
- 12) The opposite data are quantitative data except
(age **or** weight **or** temperature degree **or** blood species)
- 13) $\frac{4}{5} = \dots\dots\dots$ (decimal form) (0.2 **or** 0.8 **or** 0.25 **or** 0.75)
- 14) The ratio between 250 grams : $\frac{1}{2}$ kg =
($\frac{1}{2} : \frac{1}{4}$ **or** $\frac{1}{4} : \frac{1}{2}$ **or** $1 : \frac{1}{4}$: $\frac{1}{2}$ **or** $\frac{1}{4} : 1 : \frac{1}{2}$)



2 Complete each of the following:

- 15) The ratio between the side length of the equilateral triangle and its perimeter = :

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GEM / MATH / Primary 6



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لمزيد من أعمالنا تفضل بزيارة موقعنا على الانترنت <https://www.zakrooly.com>

16) $5 + 5 + 5 + 5 = 5 \times \dots$

17) The next figure in the following pattern  is

18) If $\frac{5}{9} = \frac{15}{x}$, then $x = \dots$

19) The difference between the greatest value and the smallest value of the set of values is called

20) The sum of any two consecutive angles in a parallelogram = °

3 Answer the following questions:21) Ahmed bought a car for L.E 25000. If he wants to sell it with a profit 10%, **find the selling price.**22) A container has 12 liters of honey. We need to distribute it on small bottles with each one of capacity 400 cm³. **Calculate the number of the needed bottles.**23) The sum of edge lengths of a cube is 132 cm. **Calculate the volume of the cube.**24) A map is drawn for some cities with drawing scale 1 : 400000, if the real distance between two cities is 46 km, **find the distance between them on the map.**25) In a primary school, the total number of the pupils is 540 pupils. If the ratio between the number of boys and the number of girls is 4 : 5, then **calculate the number of boys and girls.**

26) The following table shows the extra money which 100 workers got in a month in a factory, they are as follows:

The extra money	20 –	30 –	40 –	50 –	60 –	70 –	Total
Number of students	20	10	30	25	10	5	100

- 1) **What is the number of workers who obtained extra money less than 50 pounds?**
- 2) **Draw the frequency curve of this distribution.**



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